Description

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Minimum DB seq length: 0
Maximum DB seq length: 2000000000
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AK001486

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AC090651
AC113623
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AR197516
AR112790
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AX188198 Sequence
AR112783 Sequence
U17718 Human CTLA-
AF344836 Papio cyn
AC068630 Homo sapi
AR090481 Sequence
AR112791 Sequence
AR112784 Sequence
AR112784 Sequence
AR112784 Sequence
AR112785 Sequence
AR112785 Sequence
AR112786 Sequence
AR112786 Homo sapi
AC0103291 Homo sapi
AC016425 Homo sapi
AC09091 Homo sapi
AC090924 Rattus no
AC023907 Homo sapi
AC090934 Rattus no
AF22315 Sus scrof
U38432 Human clone
U38432 Human clone
AR146418 Sequence
U37722 Human CTLA-
E14273 Rattus norv
AX153653 Sequence
U17722 Human CTLA-
E14273 Rattus norv
AK09823 Homo sapi
AK001486 Homo sapi
AK001486 Homo sapi
AK001486 Homo sapi
AV028435 Homo sapi
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AF106827 Canis fam
AF157827 Felis cat
AB030652 Felis cat
AB030652 Felis cat
AP007704 Felis cat
AY007704 Felis sequence
AX149548 Sequence
AX149548 Sequence
AR147737 Sequence
AR147737 Sequence
AR202407 Sequence
AR159758 Sequence
AR159758 Sequence
AR159758 Sequence
AR159758 Macaca mu
AF344851 Macaca mu
AF344861 Cercoptbu
AF344861 Cercoptbu
AF344861 Cercoptbu
AF344861 Cercopth
L25259 Human CTLA4
AR030780 Sequence
AR112747 Sequence
AR112747 Sequence
AR146413 Sequence
AR146414 Sequence
AR146414 Sequence
AR146414 Sequence
AR332506 Sequence
AR330924 Sequence
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REFERENCE
AUTHORS
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KEYWORDS
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                     gene
CDS
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                                                      2 (bases 1 to 1897)
Yang, S. and Sim, G. K.
Direct Submission
Submitted (16-NOV-1998) B
Sharp Point Drive, Fort C
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Canis familiaris |
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AF106826.1 GI:65
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familiaris
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Eutheria;
                                           Location/Qualifiers
                                                                                                                                                                                                                       /gene="CD86"
                          /cell
                                /organism="Canis familiaris"
/db_xref="taxon:9615"
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   /gene="CD86
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AR084209
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AY034209
RAF026767
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SC9727
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AC010332
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AX084233
AB056772
                           peripheral blood mononuclear
                                                                                                          and CD86 transcripts that
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                                                       Basic Immunology, Heska Corporaton, Collins, CO 80525, USA
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(CD86) mRNA,
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                                                                                                                             Canidae;
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AND84233 Sequence

AB056772 Macaca fa

AP004582 Homo sapi

AL049544 Human DNA

AC010332 Homo sapi

AC010336 Homo sapi

AC095367 Rattus no

AL1390844 Human DNA

AL139019 Homo sapi

AC021112 Homo sapi

AC021112 Homo sapi

AC021112 Homo sapi

AC106085 Rattus no

AL021127 Mus muscu

AC074091 Homo sapi

AL671908 Mouse DNA

AC090827 Homo sapi

AR178940 Sequence

AR178942 Sequence

AR178942 Sequence

AR178942 Sequence

AN088416 Sequence

AN08416 Sequence

AN08416 Sequence

AN08416 Sequence

AN0942489 Oryza sat

D49842 Rabbit mRNA

AV034209 Wolffiell

X87416 H.influenza

AJ311552 Uromyces

AE010041 Streptoco

AC126744 Homo sapi

Z48758 S. cerevisia

U29381 Caenorhabdi

AC1331678 Homo sapi

AC13217 Rattus no

AC012071 Rattus no

AC012071 Rattus no

AC131684 Human DNA

AC133684 Human DNA
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TCTATCAGCTTGTCCTTCTCAGTCCCTGAAGCAAGCAATGTGAGCATCTTCTGTGTGCCTG
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ACCCCTGATGGAGACCACATCCTCTGGATTGCGGCTCTGCTTGTAATGTTGGTCATTTTG
                  ACCCCTGATGGAGACCACATCCTCTGGATTGCGGCTCTGCTTGTAATGTTGGTCATTTTG
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konstlygcfvhhkgpkglypmhgomsplvanersgapeimytsnrtmsgiinutcss
konstlygcfvhhkgpkglypmhgomsplvanersgapenytsnrtssifer
konstlygcfvhkgpkglypmhgomsplvanexsifer
vlolesmklpslpvnidahtkptpdgdhilmiaallvmlvilcgmvffltlrkrkkg
pgpshecfmkverkesbetkervryherersbeagcvnisktasgdnsttoff"
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/codon_start=1
/product="truncated B7-2 protein"
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/protein_id="AAR17298.1"
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                                                                                                                        TTQF"
                                                                                                                                                                                                                                              /function="counter-receptor for CD28 and CD152 (CTLA4)"
/note="lacks transmembrane domain; alternatively spliced"
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                                                                                                                                     Choi,I.S., Hash,S.M., Winslow,B.J. and Collisson,E.W. Sequence analyses of feline B7 costimulatory molecules Vet. Immunol. Immunopathol. 73 (3-4), 219-231 (2000)
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Felis catus CD86 antigen
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                                     Direct Submission
Submitted (10-JUN-1999)
University, Bldg. 1197
                                                                                                                                                                                           Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Carnivora; Fissipedia; Felidae;
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                                                                                                                                                                                                                               Submitted (31-JUL-1999) vorihiro Nishimura, Faculty of Agriculture, The University of Tokyo, Department of Veterinary Microbiology; 1-1-1 Yayoi, Bunkyo-ku, Tokyo 113-8657, Japan (E-mail:yorihiro@crocus.ocn.ne.jp, Tel:+81-3-5841-5396,
                                                                                                                                                                                                                                                                                                                                                                                           Izumiya,Y., Ikeda,Y., Mikami,T. and Takahashi,E. Molecular cloning of the cDNAs encoding the feline B-lymphocyte activation antigen B7-1 (CD80) and B7-2 (CD86) homologues which interact with human CTLA4-Ig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61;
                                                                                                                                                                                                                                                                                                                           Nishimura, Y
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                                                                                                                                                                                                        Sequence updated (08-Jun-2000)
                                                                                                                                                                                                                                                                                                             Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Nishimura,Y.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Felis catus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AB030652.1 GI:9796387
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Felis catus mRNA for B-lymphocyte
                                                                                                                                                                                                                        Fax:+81-3-5841-8184)
                                                                                                                                                                                                                                                                                                                                                                20485322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mammalia; Eutheria; Carnivora;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota;
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                                                                                                                                                                                                                                                                                                                                               bases 1 to 1270)
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IKDKGTYHCFHJYKGFRGLVPMHOMSSDLSVLANESQDEITVTSNRTENSGII NLTCS
SIQGYBEKEMYFQLMTENSTTKYDTTWKKSQNNVTELLYNVSISLDFSVPEAHNVSVF
CALKLETLEMLSLPFNIDAQFRDKDDEQGHFLWIAAVLVMFVVFCGMVSFKTLRKRK
KKQPQSHECETIKRERKESKQTNERVPYHVPERSDEAQCVNILKTASGDKNQ*
/product="B-lymphocyte activation antigen B7-2 (CD86)"
/protein_id="BAB11688.1"
                               /codon_start=1
                                                   /gene="CD86"
                                                                                                                                      /organism="Felis catus"
/db_xref="taxon:9685"
                                                                                     /gene="CD86"
                                                                                                                                                                                        location/Qualifiers
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/protein_id="AAD42974"."
/db_xref="GI:5381424"
/translation="MGICDSTMGLSHTLLVMALLLSGVSSMKSQAYFNKTGELPCHFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /product="CD86 antigen"
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Eutheria; Carnivora; Fissipedia; Felidae;
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                                                                                                      ll_type="peripheral.blood
.1270
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B7-2 (CD86),
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    l Similarity
61; Conser
                                                                                                                                                                                                                                                                                                                                                                                                    Submitted (06-SEP-2000) Immunology, Hes Prospect Parkway, Ft Collins, CO 80525,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Novel transcripts encoding secreted forms of feline CD80 a costimulatory molecules.
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Felis catus CD86 (CD86) mRNA,
AY007704
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61; Conserv
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6.2%; Score 61; llarity 100.0%; Pred. No. Conservative 0; Mismatch
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                                                                              CALKLETLEMILSIPFNIDAQPKDKDPEQGHFIMIAAVLVMFVVVECGMVSFKTLKRRK
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SIQOYPEPKEMYFQLMTENGSTKYDTVMKKSQNNVTELYNVSISLPFSVPEAHNVSVF
                                                                                                                                                                                                                                                                                          /gene="CD86"
179. .1177
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SIQGYPEPKEMYFQLNTENSTTKYDTVMKKSQNNVTELYNVSISLPFSVPEAHNVSVF
CALKLETLEMILSLPFNIDAQPKDKDPEOGHFLMIAAVLVMTVFCCMVSFKTLRKRK
                                                                                                                                                                                                                            /product="CD86"
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/db_xref="taxon:9685"
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                                                                                                                                                                                                                                             /codon_start=
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bothwell, A.L. Porcine endothelial CD86 is a major costimulator of xenogeneic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Maher, S.E., Karmann, K., Min, W., Hughes, C.C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sus scrofa
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                                                                                                                                                                              302
                                                                                                    Conservative
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QRMYMLLNTKNSTTEHDADMKKSQNNITELYNVSIRVSLPIPPETNVSIVCVLQLEPS
KTLLFSLPCNIDAKPFVQPPVPDHILMIAALLVTVVVVCGMVSFVTLRKRKKKQPGPS
                                                                                                                                                                                                                        /note="putative" 994
                                                                                                                                                                           /evidence=experimental
241 c 202 g
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                                                                                                                                                                                                                                                     /gene="CD86"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /cell_type="endothelial"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism="Sus scrofa"
/db_xref="taxon:9823"
                                                                                                                                                                                                          /gene="CD86"
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                                                                                                                                                                                                                                                                                                                                                                                                                      /note="putative"
                                                                                                                                                                                                                                                                                                                                                                                                                                    /standard_name="B7-2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                   /gene="CD86"
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                                                                                                               4.2%;
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                                                                                                               Score 41;
Pred. No.
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AX002781
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Sus scrofa
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AX027016
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AX002781
                                                                                                                                                                                                                                                                                                                                            Patent: WO 9855607-A 4 10-DEC-1998; BEBBINGTON CHRISTOPHER ROBERT (GB);
                                                                                                                                                                                                                                                                                                                                                                                                                                  synthetic construct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Immunosuppression
Patent: WO 0037102-A 13 29-JUN-2000;
ROGERS NICHOLA JANE (GB); DORLING A
LECHLER ROBERT IAN (GB)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; 1 (bases 1 to 994)
                                                                  Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                     artificial sequences.
1 (bases 1 to 738)
                                                                                                                                                                                                                                                                                                                                                                                                                                              synthetic construct.
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ilarity 100.0%;
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                                                                                                                    /transl_table=11
/protein_id="CAC04193.1"
/protein_id="CAC04193.1"
/db_xref="GI:9885110"
/translation="MGLSUNILEVMAFILLSGAAPLKIQAYFNETADLPCQFANSQNQSL
SELVVFWQDQENLVLNEVYLGKEKEDSVHSKYMGRTSFDSDSWTLRLHNLQIKDKGLY
QCIIHHKKPTGMIRIHQMNSELSVLANFSQPELVPISNITENVYINLTCSSIHGYPEP
KKMSVLLRTKNSTIEXDGINQKSQDNVTELYDVSISLSVSFPDVTSNMTIFCILETDK
TRLLSSPFSIELEDPQPPPDHLTGGGGS"

168 c 148 g 207 t
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                                                                                                                                                                                                                                                                                         /organism="synthetic construct"
/db_xref="taxon:32630"
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/db_xref="taxon:9823"
241 c 202 g
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Sus.
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AR147737
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Sequence 9
AX149548
                                         AR159759
Sequence 34
AR159759
AR159759.1
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Oxford Biomedica (UK) Limited (GB)
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           artificial sequences.

1 (bases 1 to 738)

Kingsman, A.O., Kingsman, S.M.,

Ellard, F.M. and Myers, K.A.
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                                                                                                                                                                                                                                                                                                                             Unknown.
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AR147737
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                                                                                                                                                                                                                                                                       1 (bases 1 to 751)
Cai.Z., Sprent,J., Brunmark,A., Jackson,M. and Peterson,P.A.
Antigen presenting system and methods for activation of T-cells
Patent: US 6225042-A 34 01-MAY-2001;
                                                                                                                                                                                                                                                                                                                                       Unknown.
       Unknown.
                                                                                                                                                                                                                                                                                                                 Unclassified
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ilarity 100.0%;
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/db_xref="taxon:32630"
/note="87-2.5T4.1"
168 c 148 g 207 t
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1. .751
                                                                                                                                                                                                                             /organism="unknown"
174 c 149 g
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from Patent WO0136486.
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                                           GI:16222532
                                                              from patent US
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Pred. No.
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Pred. No.
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US 6225042
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6.9e-07;
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Best Local S
Matches 33
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TITLE
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Best Local Similarity
Matches 33; Conserv
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                                                                                                                                           Unclassified.

1 (bases 1 to 751)

Cai, Z., Sprent, J., B
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AR160451
AR160451.1
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Sequence 34
AR202407
AR202407.1
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Cai,Z., Sprent,J., Brunmark,A., Jackson,M. and Peterson,P.A.
Antigen presenting system and methods for activation of T-cells
patent: US 6251627-A 34 26-JUN-2001;
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                      l (bases 1 to 751)
Cai,Z., Sprent,J., Brunmark,A., Jackson,M. and Peterson,P.A.
Antigen presenting system and methods for activation of T-ce
Patent: US 6255073-A 34 03-JUL-2001;
Location/Qualifiers
                                                                                                            Cai, Z., Sprent, J., Brunmark, A., Jackson, we thought for producing a synthetic antigen Drosophila cell Patent: US 6362001-A 34 26-MAR-2002;
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Similarity 100.0%;
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The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, and the encoded proteins can be used for preventing or treating diseases, tumor e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs,
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)B; AAY41076.
                                                                                   ATAATGGTAACTTCTAATAGAACAGAAAATTCTGGCATCATAAATTTGACCTGCTCATCC
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CAACTTGAGTCAATGAAGCTTCCCCTCCCTACCTTATAATATAGATGCACATACGAAACCC
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                                   TCTATCAGCTTGTCCTCAGTCCCTGAAGCAAGCATGTGAGCATCTTCTGTGTCCTG
                                                                                                                                                            ATACAAGGTTACCCAGAACCCAAGGAGATGTATTTTTTGGTAAAAACCGAGAATTCAAGT
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987; Conser
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Pred. No. 0;
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RESULT 4
AAZ27914/c
ID AAZ27914;
XX AAZ27914;
XX AAZ27914;
XX 20-DEC-1999 (first entry)
XX Canine B7-2 gene complemer
XX B7; CTLA4; T cell costimul
XX allergic reaction; infecti
XX allergic reaction; infecti
XX graft rejection; inflammat
XX 23-SEP-1999.
XX W09947558-A2.
XX W09947558-A2.
XX 19-MAR-1998; 98US-006255
XX 19-MAR-1998; 98US-007876
PR 17-APR-1998; 98US-006255
XX (HESK-) HESKA CORP.
XX Sim G, Yang S, Sellins H
XX Sim G, Yang S, Sellins H
XX New isolated B7 and CTLA4
PT treating, e.g. autoimmune
XX Claim 1: Page 101-102; 146
XX The invention provides B7
CC encoding nucleic acid mole
CC expressed by standard reco
CC and the encoded proteins (
CC expressed by standard reco
CC and the encoded proteins (
CC expressed by standard reco
CC and the satopic dermatitis.
CC development, graft rejectic
CC diagnosis and drug screeni
XX Sequence 1897 BP; 529 A; 3
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                                                            and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cattle, sheep or pets. The products can also be used for detection,
                                                                                                                                                                     The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules
                                                                                                                                                                                                                                                                                           New isolated B7 and CTLA4 nucleic acids, treating, e.g. autoimmune and atopic diss
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Query Match Best Local Similarity

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Score 987; Pred. No.

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DB 20; 0

Length 1897;

529 A; 383 C;

400 G; 585 T;

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RESULT 5
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P-PSDB;
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The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection, diagnosis and drug screening.
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17-APR-1998;
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                                                  ATACAAGGTTACCCAGAACCCAAGGAGATGTATTTTTTGGTAAAAACCGAGAATTCAAGT
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                                                                                       ATAATGGTAACTTCTAATAGAACAGAAAATTCTGGCATCATAAATTTGACCTGCTCATCC
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and drug screening.
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rejection; inflammation; arthritis;
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                    The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                              regulates T cell proliferation and cytokine release. The invention relates to a recombinant virus that contains at least one foreign nucleic acid, inserted into a nonessential genomic region, that encodes feline CD28, CD80, CD86 or CTLA-4 protein, or their immunogenic fragments, and is expressed when the recombinant virus is introduced into a suitable host. The invention also provides: a recombinant virus further comprising a foreign nucleic acid encoding an immunogen derived from a feline pathogen; recombinant virus further comprising a foreign pathogen.
                                                                                                                                                                     (B7-2). The cDNA was isolated from feline peripheral blood mononuclear cell cDNA by PCR. Manipulating the expression of CD28 or CTLA-4 (and/or their co-stimulatory ligands CD80 and CD86)
                                                                                                                                                                                                                                                                                                                                                                         (SCHE)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAZ34838
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAZ34838 standard;
                          viruses capable of enhancing an immune response to protect against disease; recombinant viruses expressing antisense sequences, capable of suppressing an immune response in a feline, e.g. for
                                                                                                                                                                                                                                         Disclosure; Fig 3A; 230pp; English
                                                                                                                                                                                                                                                                                                         P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                 01-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CD86; B7-2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Feline CD86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     28-FEB-2000
                                                                                                                                                                                                                                                                                                                                                Winslow
                                                                                                                                                                                                                                                                                                                                                                                                                                           30-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     11-NOV-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO9957295-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Felis domesticus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   immunomodulator;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          923
recombinant viruses expressing DNA
                treatment of autoimmune disease or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       863 A 863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 131 A 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       71 CTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAACTGCCATGCCATTTTACAA 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAACTGCCATGCCATTTTACAA 864
                                                                                                                                                                                                                                                                                                           2000-062155/05
DB; AAY32285.
                                                                                                                                                                                                                is the nucleotide sequence of cDNA coding for feline CD86
                                                                                                                                                                                                                                                                               recombinant virus useful as immunomodulators, particularly in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             61;
                                                                                                                                                                                                                                                                                                                                                ВJ,
                                                                                                                                                                                                                                                                                                                                                                         SCHERING-PLOUGH LTD.
SCHERING-PLOUGH VETERINARY CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                feline; cat;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (B7-2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry
                                                                                                                                                                                                                                                                                                                                                 Cochran
                                                                                                                                                                                                                                                                                                                                                                                                                 98US-0071711
                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US09504
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers 63..1052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  255
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /*tag= a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    tumour; cancer; therapy; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Α;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1080 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  recombinant virus; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 61;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  G; 319 T; 0 other;
  encoding
                transplant rejection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 20;
6.7e-20;
 CD80 and/or CD86 used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                              invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
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RESULT 12
AAZ34785
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   FIV; feline leukaemia virus; feline infectious peritonitis virus; feline panleukopaenia virus; feline callioivirus; feline reovirus-3; feline coronovirus; feline syncytial virus; feline sarcoma virus; feline herpesvirus; feline borna disease; rabies virus; chlamydia; Toxoplasmosis gondii; Dirofilaria immitis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   to
                                                   This is the nucleotide sequence of cDNA encoding feline CD86 (B7-2) liquad (see AAX32278). It was obtained following RT-PCR of peripheral blood mononuclear cell mRNA and RACE-PCR vector comprising nucleic acid encoding feline CD86 liquad or feline soluble CD80 liquad is designated PSI-2#19-2/011298 (ATCC 209821). The coexpression of CD86 with the costimulatory molecules CD28 (se
                                                                                                                                                                                                                                                                                                                                                                                  Key
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Cat CD86 (B7-2) cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAZ34785 standard; cDNA; 1080 BP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 1080
                                                                                                                                  Claim 6; Fig 3A; 186pp; English
                                                                                                                                                                                                                                                                                 01-MAY-1998;
                                                                                                                                                                                                                                                                                                       30-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                   Felis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      15-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAZ34785;
                                                                                                                                                        species
                                                                                                                                                             Novel feline proteins used to produce feline vaccines which prevent infectious disease or to promote growth in homologous or heterologous species.
                                                                                                                                                                                                      P-PSDB;
                                                                                                                                                                                                                WPI;
                                                                                                                                                                                                                                       Collison
                                                                                                                                                                                                                                                         (TEXA ) TEXAS
                                                                                                                                                                                                                                                                                                                            11-NOV-1999
                                                                                                                                                                                                                                                                                                                                                  W09957271-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                        parasite; autoimmune disease; transplant rejection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    136
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   reduce or eliminate a tumour in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A
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                                                                                                                                                                                                                2000-052972/04
                                                                                                                                                                                                                                                                                                                                                                                                                    domesticus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B7-2; ligand; cat; vaccine; feline immunodeficiency virus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        . 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61;
                                                                                                                                                                                                                                       EΨ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BP;
                                                                                                                                                                                                                                                          A & M SYSTEM
                                                                                                                                                                                                                                                                                 98US-0071699
                                                                                                                                                                                                                                                                                                       99WO-US09502
                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers 63..1055
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                                                                                                                                                                                                                                       MS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6.2%;
                                                                                                                                                                                                                                                                                                                                                                          מ
                                                                                                                                                                                                                                       Choi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 61;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            235 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cats
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6.7e-20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
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AAY32279) and a tumour antigen or an antigen from a pathogenic organism has the ability to activate or enhance activation of T-lymphocytes. Coexpression of CD86 with CTLA-4 (see AAY32280) has the ability to regulate activation of T-lymphocytes. The invention provides isolated nucleic acids encoding feline CD86 ligand,

(see

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RESULT 13
AAL46840
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        QY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        c feline CD80 (B7-1) ligand, feline CD28 receptor or feline CTLA-4
CCD152) receptor, as well as vectors comprising the nucleic acids,
and polypeptides encoded by the nucleic acids. It also provides
vaccines comprising the CD80, CD86, CD28 or CTLA-4 polypeptides and
cfeline immunodeficiency virus (FIV), feline pathogens, especially
cfeline infectious peritonitis virus, feline panleukopaenia virus,
cfeline calicivirus, feline reovirus-3, feline panleukopaenia virus,
cc feline calicivirus, feline reovirus-3, feline rotavirus, feline
coronovirus, feline syncytial virus, feline sarcoma virus, feline
cromovirus, feline Borna disease virus, rabies virus, chlamydia,
cc roxoplasmosis gondii, Dirofilaria immitis, or a flea, bacterial
cc pathogen, or parasite (all claimed). Vaccines capable of
cenhancing an immune response, and vaccines capable of suppressing
cc an immune response (suitable for treating an autoimmune disease
cu nucleic acids may be used for gene therapy or antisense therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local
                                               New recombinant virus, useful for immunizing felines to prevent or treat feline immunodeficiency virus, comprises foreign nucleic acid encoding feline cytotoxic T lymphocyte accessory molecules CD28, CD
                                                                                                               P-PSDB;
                                                                                                                                                           Winslow
                                                                                                                                                                                     (WINS/)
                                                                                                                                                                                                                                 01-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                     Cat; CD28; CD80; CTLA-4; CD86; immunogen; vaccine; viral infection; feline immunodeficiency disease; feline infectious peritonitis; feline leukaemia virus; cancer; degenerative disease; autoimmune disease; virucide; immunomodulator; cytostatic; immunodeficiency; gene; ss.
                                                                                                                                                                                                                                                            30-APR-1999;
                                                                                                                                                                                                                                                                                         02-MAY-2002
                                                                                                                                                                                                                                                                                                                      US2002051792-A1
                                                                                                                                                                                                                                                                                                                                                   Felis catus
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Feline CD86 coding sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 08-AUG-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAL46840;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAL46840 standard; cDNA; 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 1080
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 71 CTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAACTGCCATGCCATGTTTACAA 130
                                          S
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                                                                                                               2002-415200/44.
DB; AAO17734.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAACTGCCATGCCATTTTACAA 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              61;
                                                                                                                                                         ВJ,
                                         CTLA-4
                                                                                                                                                                                   WINSLOW B J. COCHRAN M D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           6.2%;
ilarity 100.0%;
Conservative (
                                                                                                                                                         Cochran
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ВP;
                                                                                                                                                                                                                               98US-083870P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 61; DB
Pred. No. 6.7
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C; 235 G;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       DB 21; 1
6.7e-20;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
                                                  CD28, CD80
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
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Disclosure; Fig

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77pp; English

Claim 6;

Fig

3A;

73pp; English

mmune response in organ transplant

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Best Local :
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                                  Polynucleotide encoding polypeptide of CD80 ligand, CD86 ligand, receptor or CTLA-4 receptor as vaccine for inducing immune responseline suffering from autoimmune disease or tissue or organ trans
                                                                                                                                     Collisson
                                                                                                                                                                                                                                                                                                                                                             CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                     feline infectious peritonitis; gene; ss; CD80 ligand; CD86 ligand; CD28; receptor; CTLA-4; vaccine; rables; autoimmune disease; organ transplant; toxoplasmosis gondli; flea; parasite; panleukopaenia; feline leukaemia; FeLV; calcivirus; rotavirus; reovirus type 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present invention relates to a recombinant virus comprising at least one foreign nucleic acid encoding a protein selected from feline cytotoxic T lymphocyte accessory molecules CD28, CD80, CD86 or CTLA-4, which is capable of expression when the virus is introduced into an appropriate host. The virus can be administered to the feline in order to elicit or enhance an immune response to prevent or treat feline immunodeficiency disease, feline leukemia, feline infectious peritonitis, cancers, degenerative and autoimmune diseases and immunodeficiency. The present sequence is the coding sequence of a cytotoxic T lymphocyte accessory molecule described in the exemplification of the invention.
                                                                                              P-PSDB;
                                                                                                          WPI; 2002-315045/35
                                                                                                                                                                                                                      01-MAY-1998;
                                                                                                                                                                 (CHOI/)
                                                                                                                                                                            (COLL/) COLLISSON E W. (HASH/) HASH S M.
                                                                                                                                                                                                                                                 30-APR-1999;
                                                                                                                                                                                                                                                                           07-MAR-2002
                                                                                                                                                                                                                                                                                                      US2002028208-A1.
                                                                                                                                                                                                                                                                                                                                                                                                    Felis
                                                                                                                                                                                                                                                                                                                                                                                                                              cornavirus; herpes;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cDNA encoding feline CD86 protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  02-JUL-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ABK48230
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             71 CTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAACTGCCATGCCATTTTACAA 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAACTGCCATGCCATTTTACAA 195
                                                                                                                                                                                                                                                                                                                                                                                                    sp
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61;
                                                                                                                                                               HASH S
CHOI I.
                                                                                              AAU78121.
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                                                                                                                                     EW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1080 BP; 333 A; 233 C; 235 G; 279 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             feline immunodeficiency virus; FIV; immunosuppressant; ious peritonitis; gene; ss; CD80 ligand; CD86 ligand;
                                                                                                                                    Hash
                                                                                                                                                                                                                    98US-083869P
                                                                                                                                                                                                                                                99US-0303510
                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers 63..1052
                                                                                                                                                                                                                                                                                                                               /product= "CD86 protein"
                                                                                                                                                                                                                                                                                                                                               /*tag=
                                                                                                                                     , MS
                                                                                                                                                                                                                                                                                                                                                                                                                              borna disease.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6.2%;
                                                                                                                                                                                                                                                                                                                                            a
                                                                                                                                     Choi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                    Ħ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 61;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 )B 24;
.7e-20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 1080;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ٦ŧ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                             CD28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Gaps
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RESULT 15
AAZ27929
ID AAZ27929
XX AZ27
XX AZ27
XX AZ27
XX B7; C
CKW B7; C
KW G11s
XX G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CC suffering from an autoimmune disease or the recipient of a tissue or corpan transplant. A vector containing the DNA sequences of the CC invention is useful for redirecting an immune response in a feline to an immune open such as rabies virus, chlamydia, toxoplasmosis gondii, CC flea, feline immunodeficiency virus, feline leukaemia (FeLV), feline CC infectious peritonitis virus (FIP), panleukopaenia virus, calcivirus, CC recovirus type 3, rotavirus, cornavirus, syncitial virus, horna disease virus or a parasite. The protein sequences CC may be further utilised to promote growth in homologous or heterologous CC feline species. Enhancement of immunity through the interaction of CC soluble CD80 or soluble CD86 with CD28 or CTLA-4 or inhibition of an CC immune response through the interaction of feline CD80 or CD86 with CC CTLA-4 takes advantage of the natural process of regulation rather than CC CTLA-4 takes advantage of the natural process of regulation rather than CC effects on overall or long term health. The present sequence represents CC cDNA encoding the feline CD86 protein of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    This invention relates to the DNA and protein sequences encoding a soluble CD80 ligand, soluble CD86 ligand, soluble and membrane-bound CD28 receptor and soluble or membrane bound CTLA-4 receptor. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; feline; graft rejection; inflammation; arthritis; atopic dermatitis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              invention also relates to a vaccine comprising an effective amount of these receptor proteins. A vaccine is useful for inducing immunity or enhancing an immune response in a cat. The protein sequences of the invention are useful for suppressing an immune response in a feline
                                                                                                                                                                                                                                                                                                                                                                              19-MAR-1998;
17-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Feline B7-2 protein encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20-DEC-1999 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1080 BP; 333 A; 233 C; 235 G;
                                                                                       P-PSDB; AAY41079
                                                                                                                              WPI; 1999-571822/48
                                                                                                                                                                                                                 Sim G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               W09947558-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Felis catus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAZ27929 standard; DNA; 2830 BP
                                                                                                                                                                                                                                                                                                (HESK-) HESKA CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       131 A 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        71 CTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAACTGCCATGCCATTTTACAA 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity
        isolated B7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAACTGCCATGCCATTTTACAA 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61;
                                                                                                                                                                                                        Yang S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                              98US-0078765
98US-0062597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             99WO-US06187
    and CTLA4 nucleic acids, used to
                                                                                                                                                                                                                 Sellins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              6.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 61;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 279 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       6.7e-20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
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develop products
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0
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밁 Š DЬ Qy

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RESULT 16
AAZ27930/c
ID AAZ279
XX AAZ279
XX AAZ279
XX Z0-DEC
XX B7; CT
KW B7; CT
KW B1:CT
KW Graft
CS Felis
XX Graft
CS Felis
XX H09947
XX L19-MAR
XX L19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Qγ
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cattle, sheep or pets. The products can also be used for detection, distanced development.
development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection,
                                                                                         and the encoded proteins can be used for preventing or treating diee.g. autoimmune diseases, allergic reactions, infectious diseases,
                                                                                                                                                        The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; feline;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAZ27930 standard; DNA; 2830 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1; Page 116-119; 148pp; English.
                                                                                                                                                                                                                                                                               Claim 1; Page 121-123; 148pp; English.
                                                                                                                                                                                                                                                                                                                                              New isolated B7 and CTLA4 nucleic acids, used treating, e.g. autoimmune and atopic diseases % \left( 1\right) =\left\{ 1\right\} 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19-MAR-1998;
17-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Felis catus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAZ27930;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 2830 BP; 877 A; 570 C; 586 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         diagnosis and drug screening.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           treating, e.g. autoimmune and atopic diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (HESK-) HESKA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  23-SEP-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 W09947558-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Feline B7-2 gene complementary DNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           312 A 312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         131 A 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        252 CTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAACTGCCATGCCATTTTACAA 311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    71 CTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAACTGCCATGCCATTTTACAA 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        rejection; inflammation; arthritis; atopic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      61;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Yang S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98US-0078765.
98US-0062597.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   99WO-US06187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sellins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6.2%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 61;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             797 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             6.6e-20;
                                                                                                                                                                                                                                                                                                                                                           - to
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                                                                                                                                                                                                                                                                                                                                                                                  develop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           dermatitis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
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                                                                                               es, tumor
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Best Local (
                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                     The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor
                                                                                                                       development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection, diagnosis and drug screening.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune dis allergic reaction; infectious disease; tumor development; feline; graft rejection; inflammation; arthritis; atopic dermatitis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2579
                                                                                                 Sequence 509
                                                                                                                                                                                                                                                 Claim 1; Page 125-126; 148pp; English.
                                                                                                                                                                                                                                                                                                                                                                           (HESK-) HESKA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                  19-MAR-1998;
17-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                       19-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               23-SEP-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Felis catus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Feline B7-2 protein (larger fragment) encoding DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAZ27933;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAZ27933 standard; DNA; 509 BP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 2830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              diagnosis and drug
           801 AACACTAAGGAAAAGGAAGAAGAAGCAGCCTGGCCCCTCTCATGAATGTGAAACCA 856
 327
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              131 A 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    isolated B7 and CTLA4 nucleic acids, used
                                                                                                                                                                                                                                                                                                                                                   ŝ
AACACTAAGGAAAAGGAAGAAGCAGCCTGGCCCCTCTCATGAATGTGAAACCA 382
                                                                                                                                                                                                                                                                                                                          1999-571822/48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    61;
                                                                                                                                                                                                                                                                                                                                                   Yang
                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                         e.g. autoimmune and
                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
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                                                                                                BP; 170 A; 109 C; 106 G; 124 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
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98US-0062597.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            screening.
                                                            5.7%;
100.0%;
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                                                                                                                                                                                                                                                                                                                                                   KS
                                                0;
                                                            Score 56;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 61;
Pred. No.
                                                                                                                                                                                                                                                                         atopic diseases
                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 20; I
6.6e-20;
thes 0;
                                                         DB 20;
2e-17;
                                                                                                                                                                                                                                                                            to develop products
                                               0,
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                                                                     Length 509;
                                               Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            autoimmune disease;
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AAT62939
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                                                                                                                                                                                                                                                                                                                 RESULT 18
AAZ27934/c
                                                                                                                                                                       RESULT 19
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                                                                                                                                                                                                                                                                          Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                           The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases
Chimeric Homo sapiens;
                                                                                                                                                                                                                                                                                                                                       such as atopic dermatitis. They can be used in mammals such cats, cattle, sheep or pets. The products can also be used f diagnosis and drug screening.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI;
                        Xenotransplantation: graft rejection; cell interaction; pig;
CD68; monoclonal antibody; chimeric antibody; diagnosis; ss.
                                                                 Chimeric
                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New isolated B7 and CTLA4 nucleic acids, used to develop products for treating, e.g. autoimmune and atopic diseases -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                B7; CTLA4; T cell costimulatory protein; dog; allergic reaction; infectious disease; tumor of
                                                                                         16-JUN-1997
                                                                                                                    AAT62939
                                                                                                                                              AAT62939 standard; DNA; 764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 1; Page 127; 148pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sim G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19-MAR-1998;
17-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19-MAR-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     W09947558-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Felis catus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   graft rejection; inflammation; arthritis; atopic dermatitis; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Feline B7-2 gene (larger fragment) complementary DNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20-DEC-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (HESK-) HESKA CORP
                                                                                                                                                                                                             183
                                                                                                                                                                                                                                     801 AACACTAAGGAAAAGGAAGAAGAAGCAGCCTGGCCCCTCTCATGAATGTGAAACCA
                                                                                                                                                                                                                                                                         Local
                                                                                                                                                                                                           AACACTAAGGAAAAGGAAGAAGCAGCCTGGCCCCTCTCATGAATGTGAAACCA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1999-571822/48
                                                                                                                                                                                                                                                              . Similarity 56; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Yang S,
                                                                human/porcine CD86 DNA construct.
                                                                                                                                                                                                                                                                                                                 509 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   standard; DNA;
                                                                                                                                                                                                                                                             Conservative
                                                                                        (first entry)
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98US-0062597
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                                                                                                                                                                                                                                                                                                                124 A; 106 C; 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sellins
                                                                                                                                                                                                                                                                         5.7%;
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                                                                                                                                                                                                                                                                        Score 56;
Pred. No.
                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                G; 170 T; 0 other;
                                                                                                                                                                                                                                                                         DB 20;
2e-17;
                                                                                                                                                                                                                                                                                      20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    development;
                                                                                                                                                                                                                                                              0;
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                                                                                                                                                                                                                                                                                     Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              autoimmune disease;
                                                                                                                                                                                                                                                                                        509;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   43
                                                                                                                                                                                                                                                                                                                                                     for
                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                     856
                                                                                                                                                                                                           128
                                                                                                                                                                                                                                                                                                                                                     detection
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ARASULT 20
ARA49661
ID ARA49
XX ARA49
AC ARA49
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A DNA construct (AAT62939) codes for a chimeric human/porcine CD86 (B7-2) cell adhesion molecule. RT-PCR was used to amplify an internal segment of the porcine CD86 gene from RNA isolated from lipopolysaccharide-stimulated potcine peripheral blood lymphocytes. A second PCR fragment encoding a truncated N-terminus was prepd. by 5'RACE PCR. The partial gene fragment was fused to the C-terminal 49 amino acids of the human CD86 IgC domain by overlapping PCR; the 3' primer included 15 nucleotides encoding a historian construction.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CDS
                                 Co-stimulatory molecule; CD86; B7-2; pig; immunosuppressive; xerotransplantation; organ transplant; vaccine; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Antibodies binding to porcine but not human cell interaction proteins - useful to treat and assay for rejection of xenografted porcine organs, tissues or cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26-SEP-1996;
28-SEP-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sig_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        histidine tag. Antibodies to porcine CD86 protein are useful for diagnosing human rejection of porcine xenotransplants and for improving xenotransplantation of porcine cells, tissues and organs into human recipients.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27-SEP-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             mat_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Chimeric
                                                                                      Pig costimulatory molecule CD86 (B7-2) cDNA.
                                                                                                                            25-SEP-2000
                                                                                                                                                                                               AAA49661 standard; cDNA; 1050 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 764 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Page 69-70; 105pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (ALEX-) ALEXION PHARM INC.
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                                                                                                                                                                                                                                                                                                            381 TTCTGACCTATCAGTGCTTGCTAACTTCAGTCAACCTGAAATAA 424
                                                                                                                                                                                                                                                                                        387 TTCTGACCTATCAGTGCTTGCTAACTTCAGTCAACCTGAAATAA 430
                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1997-212855/19
                                                                                                                                                                                                                                                                                                                                                                 44;
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                                                                                                                                                                                                                                                                                                                                                                 Conservative
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                                                                                                                          (first entry)
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95US-0004489.
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82..756
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/note= "the porcine CD86 sequence spans
nucleotides 19-597"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                      218 A; 197 C; 148 G; 201 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ..749
                                                                                                                                                                                                                                                                                                                                                                            100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                Score 44;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mueller JP,
                                                                                                                                                                                                                                                                                                                                                                        DB 18; 1
. 1.7e-11;
                                                                                                                                                                                                                                                                                                                                                               0;
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                                                                                                                                                                                                                                                    RESULT 21
AAZ27935
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17-DEC-1999;
                  Felis catus
                                                                                                                        Feline B7-2
                                                                                                                                                             20-DEC-1999
                                                                                                                                                                                               AAZ27935;
                                                                                                                                                                                                                                   AAZ27935 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (MLML-) ML LAB PLC.
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                                                                                                                                                                                                                                                                                                                             398
                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                   44;
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The present sequence is that of cDNA clone CD86(i), which encodes CD pig co-stimulatory molecule CD86 (B7-2) (see AAY95321). The clone CW was obtained by PCR amplification of pig cDNA using primers (see CRAA49662-63) based on a published pig B7-2 sequence. The invention CR relates to a novel strategy to inhibit costimulation by porcine CR cells of human T cells, with particular importance in the context CR costimulation of porcine organs. Recipients are immunised CR with hybrid synthetic peptides comprising a T cell epitope CR conjugated to sequences of the porcine costimulatory molecules CR CD80, CD86 or CD40. Peptides comprising a T cell epitope CR counter-receptors on human cells (CD28 and CD14) are capable of CR counter-receptors on human cells (CD28 and CD14) are capable of CR constinuiatory of costimulation. Once the antibody response thas been induced, the transplanted organ will recall this response CR costimulatory blockade. The method is useful for improving the costimulatory blockade. The method is useful for improving the costimulatory blockade. The method is useful for improving the costimulatory blockade. The method is useful for improving the costimulatory blockade.
B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; feline; graft rejection; inflammation; arthritis; atopic dermatitis; ss.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 1050 BP; 305 A; 260 C; 227 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           costimulatory blockade. The method is useful for improving the tolerance of a host to xenografts, particularly porcine pancreatic islet cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Novel methods for improving tolerance to a xenograft comprising immunizing a mammal with a T-cell epitope and a B-cell epitope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2000-442537/38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               381 TTCTGACCTATCAGTGCTTGCTAACTTCAGTCAACCTGAAATAA 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TTCTGACCTATCAGTGCTTGCTAACTTCAGTCAACCTGAAATAA 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                   protein (smaller fragment) encoding
                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Rogers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98GB-0027921
99GB-0025015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-GB04200.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Location/Qualifiers 36..1013
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /*tag=
                                                                                                                                                                                                                                                                                                                                         DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    , LN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  4.5%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        а
                                                                                                                                                                                                                                                                                                                                            359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Dorling
                                                                                                                                                                                                                                                                                                                                         ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 44;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    258 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB · 21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1.7e-11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 1050;
                                                                                                                                   DNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
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RESULT 22
AAZ27936/c
ID AAZ279
XX AAZ279
XX AAZ279
XX DT 20-DEC
XX B7; CT
KW B7; CT
KW B1lerg
KW graft
XX Felis
XX W09947
XX W09947
XX 19-MAR
PR 19-MAR
PR 17-APR
XX HESK-
XX (HESK-
XX WPI; 1
XX WPI; 1
                                                                                                                                                                                                                                                                                                                                                  В
                                                                                                                                                                                                                                                                                                                                                                   Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                          encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection, diagnosis and drug screening.
                                                                        19-MAR-1998;
17-APR-1998;
            WPI; 1999-571822/48
                                                                                                                                                                                       graft
                                                                                                                                                                                                 B7; CTLA4; T cell (allergic reaction;
                              Sim G,
                                                                                                                                                                   Felis catus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sim
                                                   (HESK-) HESKA
                                                                                                      19-MAR-1999;
                                                                                                                           23-SEP-1999
                                                                                                                                                W09947558-A2
                                                                                                                                                                                                                                Feline B7-2
                                                                                                                                                                                                                                                     20-DEC-1999
                                                                                                                                                                                                                                                                          AAZ27936
                                                                                                                                                                                                                                                                                           AAZ27936 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; Page 127-128; 148pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              treating,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New isolated B7 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (HESK-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19-MAR-1998;
17-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          W09947558-A2
                                                                                                                                                                                                                                                                                                                                                                     540
                                                                                                                                                                                                                                                                                                                                                 60
                                                                                                                                                                                                                                                                                                                                                          TACTAAGTATGATACTGTCATGAAGAAATCTCAAAATAATGT
                                                                                                                                                                                                                                                                                                                                              1999-571822/48
                                                                                                                                                                                        rejection;
                                                                                                                                                                                                                                                                                                                                                                                          42;
                              Yang
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              HESKA CORP
                                                                                                                                                                                                                                                                                                                                                                                                   Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAY41081
                                                                                                                                                                                                                                                                                                                                                                                                                                  359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             e.g. autoimmune and
                                                                                                                                                                                                                               gene
                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                              ŝ
                                                                                                                                                                                                                                                                                                                                                                                                                                 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          s,
                                                                                                                                                                                                                                                    (first entry)
                                                                        98US-0078765
98US-0062597
                                                                                                      99WO-US06187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    98US-0078765
98US-0062597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-US06187
                                                                                                                                                                                                                                                                                                                                                                                                                                128 A; 79 C;
                              Sellins
                                                                                                                                                                                       inflammation;
                                                                                                                                                                                                                              (smaller fragment)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sellins
                                                                                                                                                                                              costimulatory protein; dog; cat; autoimmune disease; infectious disease; tumor development; feline;
                                                                                                                                                                                                                                                                                             DNA;
                                                                                                                                                                                                                                                                                                                                                                                      100.0%; F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CTLA4 nucleic acids, used
                                                                                                                                                                                                                                                                                             359
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           KS;
                                                                                                                                                                                                                                                                                             ΒP
                                                                                                                                                                                                                                                                                                                                                                                                              Score 42;
                                                                                                                                                                                                                                                                                                                                                                                                   Pred.
                                                                                                                                                                                                                                                                                                                                                                                                                                 69
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             atopic diseases
                                                                                                                                                                                      arthritis; atopic
                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                 <u>ი</u>
                                                                                                                                                                                                                               complementary DNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                 83
                                                                                                                                                                                                                                                                                                                                                                                                    No.
                                                                                                                                                                                                                                                                                                                                                                                                                                T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                        DB 20; 1
1.7e-10;
hes 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                , 6
                                                                                                                                                                                                                                                                                                                                                                    581
                                                                                                                                                                                                                                                                                                                                                                                                            Length 359;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       develop
                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      products
                                                                                                                                                                                                                                                                                                                                                                                        0;
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RESULT 23
AAV80293
ID AAV80
XX AAV80293
XX AAV80
AC AAV80
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   04-JUL-1997;
04-JUN-1997;
20-JUN-1997;
                                                                                                                                                                                                   New vector encoding a tumour interacting protein for treating - contains a desired nucleotide sequence and/or protein which recognises tumours, and is used as a gene delivery system to t
                                                                                                                                                                                                                                                                                                     WPI; 1999-059910/05
P-PSDB; AAW86005.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Chimeric -
Chimeric -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins ca expressed by standard recombinant methodology. The nucleic acid molecules are more than the combinant methodology.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                04-JUN-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WO9855607-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAV80293;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                       Example 5; Fig 4;
                                                                                                                                                                                                                                                                                                                                                                       Myers
                                                                                                                                                                                                                                                                                                                                                                                             Bebbington CR,
                                                                                                                                                                                                                                                                                                                                                                                                                                        (OXFO-) OXFORD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             10-DEC-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5T4 antigen; monoclonal antibody; single chain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human B7-2 extracellular domain and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAV80293 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cats, cattle,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    treating,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New isolated B7 and CTLA4 nucleic acids, used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   interacting
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         l Similarity
42; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 359 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       tle, sheep or pets. The products can also be used for detection and drug screening.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    e.g. autoimmune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        B7-2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                97GB-0014230.
97GB-0011579.
97GB-0013150.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98WO-GB01627
                                                                                                                                                                                                                                                                                                                                                                                                                                        BIOMEDICA UK LTD
                                                                                                                                                                                                                                                                                                                                                                                             Carroll MW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 83 A; 69 C;
                                                                                                                                     82pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cDNA; 738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     co-stimulatory molecule; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4.3%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       and atopic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ВP
                                                                                                                                                                                                                                                                                                                                                                                             Ellard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 42;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 79 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 128
                                                                                                                                                                                                                                                                                                                                                                                             FM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                linker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              1.7e-10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 20;
                                                                                                                                                                                                                                                                                                                                                                                          Kingsman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ٠ç
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             antibody;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   259
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          develop products
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      359;
                                                                                                                                                                                                          to treat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0,
                                                                                                                                                                                                                                                       cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 molecules
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This DNA sequence encodes a polypeptide (see AAW86005) comprising the extracellular domain (amino acids 1-215) of human co-stimulatory molecule B7-2 joined to a C-terminal flexible peptide linker. This is part of the coding sequence of B7-2.5T4.l co-stimulatory domain, a DNA sequence encoding a fusion protein comprising the B7-2

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ARESULT 2
AAF89731
ID F89731
ID AAF
AC AAF
AC AAF
AC AC AAF
AC AC AAF
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Best Local Similarity
Matches 33; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Single chain antibody; ScFv; inflammatory disease; arturitus, which hypersensitivity; autoimmune disease; central nervous system disorder; harkinson's disease; periodontal disease; cardiopulmonary disease; cardiovascular disease; gastrointestinal disorder; infection; diabetes
             Use of single chain antibody capable of recognizing a disease associated molecule for manufacturing a medicament for preventing and/or treating a disease condition associated with disease associated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CDS
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15-FEB-2000;
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                                                                                                                                                                                                                                                 Kingsman
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2000GB-0005071
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1..738
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 20; 1
                                                                                                                                                                                                                                                 Carroll MW,
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Db Qγ

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RESULT 25
AAV03230
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The specification describes the use of a single chain antibody (ScFv), which is capable of recognizing a disease associated molecule in the manufacture of a medicament for the prevention and treatment of a disease condition. The ScFv antibody is useful in the manufacture of a medicament, for affecting a disease in vivo, for preparing a pharmaceutical composition, for in vivo imaging and/or for adjuvant treatment of a disease. The ScFv antibody is also useful for treatment of a diseases. The ScFv antibody is also useful for treatment of a diseases including arthritis, hypersensitivity, autoimmune diseases, cancers, central nervous system disorders autoimmune diseases, cancers, central nervous system disorders diseases, cardiovascular diseases, periodontal diseases, cardiopulmonary diseases, cardiovascular diseases, gastrointestinal disorders, fine present sequence encodes a B7-2.574.1 fusion protein.

This comprises the N-terminus of the 574 ScFv is fused after amino acid
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                                                                                                                                                        21-FEB-1997;
14-JUN-1996;
19-FEB-1997;
                      Hexameric fusion stimulating CD28
                                                               WPI; 1998-052299/05
P-PSDB; AAW32339.
                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA encoding
                                                                                                      Chaikin MA,
                                                                                                                                                                                                                                                                                                          mat_peptide
                                                                                                                                                                                                                                                                                                                                  sig_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                  CD86; CD28;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 738 BP; 215 A; 168 C; 148 G; 207 T; 0 other;
                                                                                                                                                                                                               13-JUN-1997;
                                                                                                                                                                                                                                                                   WO9747732-A2
                                                                                                                                                                                                                                                                                                                                                                            Homo
                                                                                                                                                                                                                                                                                                                                                                                                       human;
                                                                                                                                                                                                                                                                                                                                                                                                                 Hexameric fusion protein; IgA; alpha-tp; tailpiece; antibody; CD86; CD28; CTLA-4; vaccine; diagnosis; binding assay; screen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22-JUN-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                           CD86 extracellular
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96US-0019934.
97US-0043948.
                                                                                                                                                                                                             97WO-US12599
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127..831
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                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers 52..126
                                                                                                     SDP,
                       protein containing positive cells, or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       cDNA; 831
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                                                                                                      Sweet RW,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 33;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                         domain in CD86Fcalphatplink.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                      Truneh
                      IgA antibody fragment - used suppressing CTLA-4 positive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          405
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. 4.8e-06;
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                                                                                                                                                                                                                                                                                                                                                                                                                  screening;
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                                    used
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                                    for
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RESULT 20
AAV83208
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Best Local
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09-APR-1997;
01-MAY-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        tailpiece provides the fusion protein with the ability to form stable hexamers. Also claimed are polynucleotides encoding the hexameric fusion proteins, vectors, recombinant host cells and a method for producing the hexamers. The fusion protein is useful in therapeutics and vaccines, and is particularly well suited for applications for which the binding protein from which it is derived is unsatisfactory because of low binding affinity or for applications where multivalency is desired. Applications include diagnostics, binding assays and screening assays. CD86-1g-alpha-tp fusion protein is used in claimed methods for stimulating CD28
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mouse; immunodeficient; pathogen; tumour; lymphocyte; antigen; immunomodulator; vector; vaccine; cancer; HIV; Leishmania; Mycobacterium; Listeria; Plasmodium; retrovirus; evaluation;
Example 1b; Page 104-105; 154pp;
                                                                                 Use of immunodeficient mice comprising human cells particularly SCTD/belge mice comprising human immune cells for evaluating
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                                                        vaccines against cancers or human pathogens,
                                                                                                                                                                                      WPI; 1999-024005/02
                                                                                                                                                                                                                                                                                                           (CHAN/) CHANG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  09-APR-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           human immunodeficiency virus; ds.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCAGTGCTTGCTAACTTCAGTCAACCTGAAATA 474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1; Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  cells or suppressing CTLA-4 positive cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
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                                                                                                                                                                                                                                                                                                                                                                    97US-0069163.
97US-0838702.
97US-0848760.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98WO-US06944
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CDNA; 972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 33;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         portion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      221 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DB 19;
4.8e-06;
                                                               e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 831;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
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RESULT 27
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Best Local S
Matches 33
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               producing and evaluating vaccines including cancer vaccines and vaccines directed against human pathogens, e.g. HIV, Leishmania, vaccines directed against human pathogens, e.g. HIV, Leishmania, Mycobacterium, Listeria or Plasmodium. This sequence is an intermediate retroviral vector derived from pLNL6, a vector approved for clinical use in the United States. pLLL is essentially pLNL6 digested with ClaI and BclI to remove cloning sites and the pLNL6 internal Syneo gene. These were replaced with a polylinker. A neo gene was then inserted under the transcriptional control of the SV40
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        exposure to human pathogens and/or their components or human tumour cells and human peripheral blood lymphocytes. Also claimed is a vaccine comprising a cell modified to express an antigen and an immune-modulating protein, this is preferably an expression vector comprising a polynucleotide sequence that encodes the antigen and immune-modulating protein. Such vectors can be used
New composition, useful for treatment and/or prophylaxis of cancer tumor, comprises immunostimulatory molecule and animal cells cultur
                                                                                                                                                                                                                                                                                                                                                          CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       to treat a subject having a tumour by transferring the expression vector into the tumour so that the antigen and the immune-modulator are expressed by at least the tumour. The methods can be used for
                                                    WPI; 2002-082990/11.
P-PSDB; AAE15830.
                                                                                                                                                                                                                                                                                     WO200188097-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human co-stimulatory molecule, B7-2 DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                enhancer/promoter to create the vector pLSN. Two primers (AAV83187 AAV83188) were used to amplify the B7-2 cDNA (a ligand for CD28/CTLA-4 proteins, co-stimulators for interleukin-2 driven
                                                                                                                                                                            17-MAY-2000; 2000AU-0007553
                                                                                                                                                                                                                                                    22-NOV-2001
                                                                                                                                                                                                                                                                                                                                                                                                           Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                           antigen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human; vaccine; immunostimulatory molecule; interferon; IFN;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26-MAR-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAD25510;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAD25510 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 972 BP; 304 A; 204 C; 194 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              proliferation of T-cells) for its insertion into pLSN.
                                                                                                                                         (MONU ) UNIV MONASH
                                                                                                                                                                                                              17-MAY-2001; 2001WO-AU00565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         373
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Immunodeficient mice comprising human cells can be used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         391 TCAGTGCTTGCTAACTTCAGTCAACCTGAAATA 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                           sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCAGTGCTTGCTAACTTCAGTCAACCTGAAATA 405
                                                                                                                                                                                                                                                                                                                                                                                                                                           presentation; vaccine; tumourigenesis; cancer; cytostatic,
pur; antibacterial; virucide; fungicide; protozoacide; B7.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                                                                                                                                                                                                                                                                      Location/Qualifiers
1..972
                                                                                                                                                                                                                                                                                                                     /*tag= a
/product= "Human B7-2 protein"
                                                                                                                                                                                                                                                                                                                                      /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DNA; .972
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          3.3%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 33;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               270 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 4.8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          в 20;
.8e-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                         protozoacide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 972;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                             B7-2; ds
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The present invention relates to a composition of matter comprising an immunostimulatory molecule and animal cells cultured in the presence of at least one interferon (IFN) for a time and under conditions sufficient to enhance the antigen presenting function of the cells. The invention is used as vaccine. The composition is useful for treatment and/or prophylaxis of tumourigenesis, cancer, viral, bacterial, fungal and protozoal infections. The composition which comprises the soluble immunostimulatory molecule and the cultured animal cells is administered separately, sequentially or simultaneously to the patient. The present sequence is human co-stimulatory molecule, B7-2 DNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              in
A cDNA library was constructed in the pCDM8 vector using poly A+ RNA from the human anti-IgM activated B cells. Four clones were strongly positivie for B7-2 expression by indirect immunofluorescence using CTLA41g and flow cytometric analysis. The B7-2 cDNA insert in clone 29 was sequenced in the pCDM8 expression vector employing the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                cells
                                                                                                                                                                          WPI; 1995-075236/10.
P-PSDB; AAR67984.
                                                                                                                                                                                                                                                     (DAND )
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human B lymphocyte antigen B7-2 (hB7-2-clone 29).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 20-AUG-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAQ81351;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAQ81351 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                Claim 4;
                                                                                                                           Nucleic acids encoding CTLA4/CD28 counter receptor, B7-2 - useful for enhancing or suppressing T-cell mediated immune responses
                                                                                                                                                                                                                                                                                                                    26-JUL-1993;
19-AUG-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                             W09503408-A
                                                                                                                                                                                                                         Freeman
                                                                                                                                                                                                                                                                                                      03-NOV-1993;
                                                                                                                                                                                                                                                                                                                                                                 26-JUL-1994;
                                                                                                                                                                                                                                                                                                                                                                                              02-FEB-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        373 TCAGTGCTTAACTTCAGTCAACCTGAAATA 405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   391 TCAGTGCTTGCTAACTTCAGTCAACCTGAAATA 423
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local Similarity
nes 33; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              presence of interferon
                                                                                                                                                                                                                       GJ,
                                                                                                                                                                                                                                                                      DANA FARBER CANCER INST
                                                                                                                                                                                                                                                       REPLIGEN CORP
                                                                                             Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               972 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     counter
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                       Gray GS,
                                                                                             8; 175pp; English.
                                                                                                                                                                                                                                                                                                  93US-0101624.
93US-0109393.
93US-0147773.
                                                                                                                                                                                                                                                                                                                                                                94WO-US08423
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                304
                                                                                                                                                                                                                                                                                                                                                                                                                                                          /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100-101;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cDNA; 1120 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    receptor;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A; 204 C; 194 G; 270 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3.38;
                                                                                                                                                                                                                       Greenfield E,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 127pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             to enhance antigen presenting function of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 33;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B lymphocyte antigen; B7-2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
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                                                                                                                                                                                                                       Nadler LM;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 24;
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Best Local
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                        DNA encoding a B7-2 fusion protein regulate B lymphocyte antigens
                                                                                                                                                                                                                                                                                                                    07-JUN-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               mat_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sig_peptide
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CDS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTLA4; CD28; ligand; B7-2; B lymphocyte antigen; B-cell;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human B lymphocyte antigen B7-2 cDNA.
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                                                                                                                                                                                     Freeman
                                                                                                                                                                                                                                       (DAND ) DANA FARBER CANCER INST INC (REPK ) REPLIGEN CORP.
                                                                                                                                                                                                                                                                                                                                                                           06-JUN-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO9640915-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         therapy;
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                                                                                                                                 1997-077269/07.
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                                                                                                                                                                                     GJ,
                                                                                                           AAW08467
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                                                                                                                                                                                Gray GS,
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107..175
/*tag= b
176..1093
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                                                                                                                                                                                     Nadler LM
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Pred. No.
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RESULT 3
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XX AAV
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XX B7-:
XX CTL.:
XX C
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Best Local
             This sequence encodes the human B7-2 antigen, which can be used in the method of the invention. The method is for transfecting an isolated mammalian tumour cell with an exogenous nucleic acid molecule encoding a mammalian B7-2 molecule, where the B7-2 molecule is expressed in the tumour cell is capable of costimulating a T cell and is capable of binding a CD28 or CTLA4 ligand. The method is useful for treating tumours
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A cDNA clone (AAT49181), designated clone 29, codes for the B-lymphocyte antigen B7-2 (AAM08467), a CTLA4/CD28 ligand which costimulates T cell activation. It was obtd. by transfecting COS cells with a human anti-1gM activated B cell cDNA library, reacting transfectants with CTLA4Ig and CD28Ig, and panning with anti-human IgG antibody. E. coli transfected with a vector contg. the cDNA insert of clone 29 was deposited as ATCC 69357. Nucleic acids encoding the extracellular domain, variable region-like domain or construct novel fusion proteins with e.g. an immunoglobulin constant region. These can be expressed in host cells and used to enhance or suppress T cell-mediated immune responses.
                                                                                                                                                                                                                                                         Tumour cell transfected to express B7-2 molecule therapy by stimulating T-cell response
                                                                                                                                                                                                              Claim
                                                                                                                                                                                                                                                                                                                                                                                                                       Freeman
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03-NOV-1993;
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CTLA4 ligand;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human B7-2 antigen coding sequence
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93US-0147773.
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response against
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          response; human;
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hes 0;
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tumour
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cells
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RESULT 31
AAC84049
CC The invention relates to an isolated nucleic acid molecule encoding a CC fusion protein comprising a first nucleotide sequence encoding a first peptide, and a second nucleotide sequence encoding a second peptide.

CC The first nucleotide sequence hybridizes in 6 x sodium chloride/sodium CC citrate (SSC) at 45 deg. C, followed by a wash in 0.2 x SSC at 50 deg. C cto a portion of a nucleotide sequence which encodes a human or murine CC bymphocyte antigen (B7-2) extracellular domain. The first peptide has an amino acid conceptide sequence that is identical or at least 50% identical with the extracellular domain of a human B7-2 peptide (AAB37085). The second conceptide is especially an immunoglobulin constant region. This sequence crepresents the cDNA clone 29 encoding the human B lymphocyte antigen B7-2 (hB7-2 clone 29) and is used as a first sequence in the construct of the invention. The nucleic acid molecules are useful in various expression conception of the corresponding proteins or peptides in a variety of hosts, particularly eukaryotic cells, e.g. mammalian or constant cell (sarcoma) or the immunogenicity of a mammalian cell, e.g. tumour cell (sarcoma) or constant cell (macrophage). The fusion proteins or peptides consecutions or peptides consecutions or peptides consecutions or cell (sarcoma) or consecutions or cell (sarcoma) or consecutions or cell (sarcoma) or cell 
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Best Local
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19-AUG-1993;
03-NOV-1993;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Nucleic acids and fusion proteins of CTLA4/CD28 ligands, useful for enhancing or suppressing T cell-mediated immune responses, especially during tissue, skin or organ transplantation, or in graft-versus-host
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (DAND
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     antigen; extracellular domain; CTLA4; immunoglobulin constant region; immunogenicity; tumour; sarcoma; antigen presenting cell; macrophage; T cell-mediated immune response; transplantation; vaccination; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 43;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           P-PSDB;
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33; Conserv
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93US-0109393.
93US-0147773.
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Pred. No.
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1: /cgn2_6/ptcdata/2/pubpna/PCT_NEW_PUB.seq:*

2: /cgn2_6/ptcdata/2/pubpna/PCT_NEW_PUB.seq:*

3: /cgn2_6/ptcdata/2/pubpna/US06_NEW_PUB.seq:*

4: /cgn2_6/ptcdata/2/pubpna/US06_PUBCOMB.seq:*

5: /cgn2_6/ptcdata/2/pubpna/US07_NEW_PUB.seq:*

6: /cgn2_6/ptcdata/2/pubpna/US08_NEW_PUB.seq:*

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US-10-105-200A-3

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US-09-837-867A-22

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Sequence 38, Appl Sequence 37, Appl Sequence 31, Appl Sequence 41, Appl Sequence 77, Appl Sequence 27, Appl Sequence 63, Appl Sequence 100, App Sequence 100, App Sequence 101, Appl Sequence 111, Appl Sequence 1173, Appl Sequence 1174, Appl Sequence 1173, Appl Sequence 1174, Appl Sequence 1173, Appl Sequence 1173, Appl Sequence 1173, Appl Sequence 1173, Appl Sequence 27, Appli Sequence 27, Appli Sequence 31, Appli Sequence 31, Appli Sequence 31, Appli Sequence 27, Appli Sequence 27, Appli Sequence 31, Appli Sequence 4872, Appli Sequence 4872, Appli Sequence 4872, Appli Sequence 4872, Appli Sequence 61, Appli Se
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                                                                                                                                                                                                                GENERAL INFORMATION:
APPLICANT: Winslow, Barbara J.
APPLICANT: Cochran, Mark D.
TITLE OF INVENTION: Recombinant Virus Expressing Foreign DNA Encoding
TITLE OF INVENTION: Feline CD80, Feline CD86, Feline CD28, Feline CTLA-4
TITLE OF INVENTION: Feline Interferon-gama And Uses Thereof
FILE REFERENCE: 54957-B
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                                                                                                         SEQ ID NO 5
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                                 LENGTH: 1080
TYPE: DNA
ORGANISM: feline CD86
FEATURE:
                                                                                                                     EARLIER FILING DATE: 1998-05-01
NUMBER OF SEQ ID NOS: 82
SOFTWARE: PatentIn Ver. 2.0
                                                                                                                                                                 CURRENT APPLICATION NUMBER: US/09/303,040
CURRENT FILING DATE: 1999-04-30
EARLIER APPLICATION NUMBER: 60/083,870
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/09/303,510A CURRENT FILING DATE: 1999-04-30 EARLIER APPLICATION NUMBER: 60/083,869 EARLIER FILING DATE: 1998-05-01 NUMBER OF SEQ ID NOS: 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Collisson, Ellen W.
APPLICANT: Hash, Stephen M.
APPLICANT: Choi, InSoo
TITLE OF INVENTION: Feline CD80, Feline CD86, Feline CD28, and Feline
TITLE OF INVENTION: CTLA-4 Nucleic Acid and Polypeptides
FILE REFERENCE: 54954
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ORGANISM: Feline
NAME/KEY: CDS
LOCATION: (63
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Local Similarity 100.0%;
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9 US-09-938-842A-1073

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7 US-09-785-970A-14

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9; Pred. No. 4.7e-23;

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Sequence 170, App
Sequence 1, Appli
Sequence 31, Appl
Sequence 14, Appl
Sequence 66, Appl
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; OTHER INFORMATION: n=A,T,C or US-09-796-692-7817
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LENGTH: 551
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APPLICANT: Algate, Paul A.
APPLICANT: Mandion, Jane
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE DETECTION, DIAGNOSIS AND THER
TITLE OF INVENTION: HEMATOCOGICAL MALIGNANCIES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT FILING DATE: 2001-03-01
PRIOR APPLICATION NUMBER: 60/186,126
PRIOR FILING DATE: 2000-03-01
PRIOR APPLICATION NUMBER: 60/190,479
PRIOR FILING DATE: 2000-03-17
PRIOR FILING DATE: 2000-03-17
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CURRENT APPLICATION NUMBER: US/09/796,692
CURRENT FILING DATE: 2001-03-01
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NUMBER OF SEQ ID NOS: 9597
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PRIOR FILING DATE: 2000-04-27
PRIOR APPLICATION NUMBER: 60/200,303
PRIOR FILING DATE: 2000-04-28
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                                                                                                                     NAME/KEY: unsure LOCATION: (535)
                                                                                                                                                            OTHER INFORMATION: n-A, T, C or
                                                                                                                                                                                                                                     ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                           TYPE: DNA
                                                                                                                                                                              NAME/KEY: unsure LOCATION: (526)
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100.0%; Pred. No. 4.7e-23;
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Patent No. 6251627
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Best Local :
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                                                                                                                             GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ATTORNEY/AGENT INFORMATION:
NAME: Olson, Arne M.
REGISTRATION UNMBER: 30,203
REFERENCE/DOCKET NUMBER: TSRI
TELECOMMUNICATION INFORMATION:
TELECOMMUNICATION 10F0RMATION:
TELECOMMUNE: (312) 580-1180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
TITLE OF INVENTION: ANTIGEN PRESENTING SYSTEM AND METHODS FOR TITLE OF INVENTION: ACTIVATION OF T-CELLS
NUMBER OF SEQUENCES: 45
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/039,982A
FILING DATE: 16-MAR-1998
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CITY: Chicago
CTATE: Illinois
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MOLECULE TYPE: CD
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                                                                                                                                                                                                                                                                                                                                 Local Similarity 100.0%;
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                                                                                                                                                             Application US/09039641
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                                                            Brunmark, Anders
Jackson, Michael
                                                                                             Cai, Zeling
Sprent, Jonathan
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VENTION: ANTIGEN PRESENTING SYSTEM AND METHODS FOR ACTIVATION OF T-CEL
                                             Peterson,
                                                                                                                                                                                                                                                                                                                  Conservative
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Sprent, Jonathan
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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                                                                                                                                                                                                                                                                                                                                DB 4;
5.9e-07
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Patent No.
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Best Local S
Matches 33
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                 APPLICANT: Jackson, Machine APPLICANT: Peterson, Per A. TITLE OF INVENTION: ANTIGEN PRESENTING SYSTEM AND METHODS TITLE OF INVENTION: FOR ACTIVATION OF T-CELLS
                                                                                                                                                                                                                     CORRESPONDENCE ADDRESS:
ADDRESSEE: Olson & Hierl, Ltd.
STREET: 20 No. 6235073th Wacker Drive, 36th Floor
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US,
FILING DATE: 16-MAR-199
CLASSIFICATION: 435
                                                                                                                                     COMPUTER READABLE FORM:
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MOLECULE TYPE: CE
HYPOTHETICAL: NO
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ATTORNEY/AGENT INFORMATION:
NAME: Olson, Arne M.
REGISTRATION NUMBER: 30,203
REFERENCE/DOCKET NUMBER: TS
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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                                                                 MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
                                                                                                                                                         ZIP: 60606
                                                                                                                                                                         COUNTRY:
                                                                                                                                                                                       STATE:
                                                                                                                                                                                                          CITY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TYPE: nucleic acid
STRANDEDNESS: double
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COMPUTER: IF
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les 33; Conserv
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FILING DATE: 8-MAR-1995
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20 No. 6251627th Wacker Drive, Suite 3000
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(312) 580-1189
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100.0%; Pred. No. 5.9e-07;
tive 0; Mismatches 0;
                                 US/09/039,762A
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Perfect score:
Sequence:
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Maximum
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       AA056906
AA056905
BI824940
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BI906246
BM089797
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     AA056906 EST224R P
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AI559219
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AI1424694
AI1418705
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N98388 za7lh02.rl
Al424694 tf64d03.x
Al418705 tf67d02.x
Al2108150 qg32h12.x
BG197470 RST16715
BG185108 RST4065.x
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ANPOL615 RCO-NNI101
BG193509 RST12663
APPOL6164 RC4-GNO06
ANPOL6164 RC4-GNO06
ANPOL6164 RC4-GNO06
ANPOL6164 RC4-GNO16
ANPOL627 RC7-NNI101
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REFERENCE
AUTHORS
TITLE
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AA056906
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                   Matches
                            Best Local
                                      Query Match
                                                                                                                                                                                                                                                                                                 JOURNAL
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381 TTCTGACCTATCAGTGCTTGCTAACTTCAGTCAACCTGAAATAA
                   44;
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448 bp mRNA linear EST 18-SEP-1996
EST224R Pig Spleen lambda gt l Library (Clontech Cat # PL1006b)
Sus scrofa cDNA clone SPL224 reverse similar to L25259 CTLA4
Counter receptor, human, mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EST
                                                                                                                                                                          BACKWARD: GACCGGGGGTCAGCT
Insert Length: 950 Std Error:
Seq primer: GACCGGGGTTCAGCT.
                                                                                                                                                                                                                                                                                      Unpublished (1996)
Contact: Tuggle CK
                                                                                                                                                                                                                                                                                                                 1 (bases 1 to 448)
Tuggle, C.K., Wahls, S. and Schmitz, C.
                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae;
                                                                                                                                                                                                                                                                                                                                                        Sus scrofa
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                                                                                                                                                                                                                                                         Iowa State University
201 Kildee Hall, Ames,
                                                                                                                                                                                                                                                                           Molecular Genetics Laboratory, Department of Animal
                                                                                                                                                                                                                                                                                                         Expressed Sequence Tags from Pig Spleen
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                             Similarity
                                                                  126
                 4.5%;
ilarity 100.0%;
Conservative
                                                                                                                                                                                                                                       5152942401
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                                                                                                                                                                                                                           .cktuggle@iastate.edu
                                                                 /tissue_type="spleen"
/dev_stage="adult"
/note="Oligo (dT) primed"
/116 c 89 g 116
                                                                                                                  /clone="SPL224"
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                                                                                                                                     /organism="Sus scrofa"
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AW051810
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AI334030
                   0;
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                            . 44;
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                   DB 9; Le
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BQ029054 UI-H-DT0-
AI088713 gal2d01 x
BF222484 7p53a02.x
AI264250 qk20a08.x
AI421543 tf26c08.x
AI804063 tf60h02.x
AW572903 hf17c08.x
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AW516826 xq04h01.x
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AI769172 wg34g05.x
BF439216 nab61b03.
AW991229 RDEV152 H
BF197202 7m8ff11.x
BM504702 1g89d07.x
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AI769012 wg31f01.x
BG218952 RST38700
                                                                                                                                                                                                                                                                                                                                       Sus.
                                                                                                                                                                                                                                                                              Science
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                                                                                                                   (Clontech
                    0,
                    Gaps
                    0;
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AUTHORS
TITLE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SOURCE
ORGANISM
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DEFINITION
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AA056905/c
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TITLE
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Query Match
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BI824940.1 GI
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AA056905.1 GI:1549545
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BACKWARD: GACCGGCGCTCAGCT
Insert Length: 950 Std Err
Seq primer: TGGCGACGACTCCTG
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Expressed Sequence Tags from Pig Spleen
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Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sus scrota
            NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
                                                                      Eukaryota; Metazoa; Chordata; Mammalia; Eutheria; Primates; 1 (bases 1 to 655)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Iowa State University
201 Kildee Hall, Ames
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603032554F1 NIH_MGC_115
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Email: cgapbs-r@mail.nih.gov
                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (bases 1 to 512)
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106 c 114 g 163
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Sus scrofa"
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# PL1006b)"
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Cetartiodactyla;
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sapiens
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actyla; Suina; Suidae;
                                                                                        Craniata; Vertebrata; Catarrhini; Hominidae;
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                                             Collection (MGC)
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IMAGE:5173789 5',
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Homo.
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Perfect score:
Sequence:
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 Pred. No.
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1 atgtatctcagatgcactat.....acaacagtactacacagttt 840
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                    2054640 seqs, 14551402878 residues
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Sharp Point Drive, Fort Collin
Location/Qualifiers
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AC006595 Caenorhab
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AC074091 Homo sapi
AL671908 Mouse DNA
AC090827 Homo sapi
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                                          CAACTTGAGTCAATGAAGCTTCCCCTCCCTACCTTATAATATAGAAACCAACAAAGTGGAG
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/function="counter-receptor for CD28 and CD152 (CTLA4)"
/note="lacks transmembrane domain; alternatively spliced"
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Yang,S. and Sin,G.-K.
Direct Submission
Submitted (16-NOV-1998) Basic Immu
Sharp Point Drive, Fort Collins, C
Location/Qualifiers
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                          ATGTATCTCAGATGCACTATGGAACTGAATAACATTCTCTTTGTGATGACCCTCCTGCTC
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Canis familiaris
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Eukaryota; Metazoa; Chordata; Fissipedia; Canidae;
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/function="counter-receptor
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/db_xref="taxon:9615"
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Choi,I.-S., Hash,S.,
Direct Submission
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Felis catus CD86 antigen (CD86)
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/codon_start=1
/product="CD86 antigen"
/protein_id="AAD42974.1"
/db_xref="GI:5381424"
/tanslation="MGICDSTMGLSHTLLVMALLLSGVSSMKSQAYFNKTGELPCHFT
/txnslation="MGICDSTMGLSHTLLVMALLLSGVSSMKSQAYFNKTGELPCHFT
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/note="B7-2;
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/db_xref="taxon:9685"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                Submitted (31-JUL-1999) Yorihiro Nishimura, Faculty of Agriculture, The University of Tokyo, Department of Veterinary Microbiology; 1-1-1 Yayoi, Bunkyo-ku, Tokyo 113-8657, Japan (E-mail:yorihiro@crocus.ocn.ne.jp, Tel:+81-3-5841-5396,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Nishimura,Y., Shimojima,M., Miyazawa,T., Sato,E., Nakamura,K., Izumiya,Y., Ikeda,Y., Mikami,T. and Takahashi,E. Molecular cloning of the cDNAs encoding the feline B-lymphocyte activation antigen B7-1 (CD80) and B7-2 (CD86) homologues which interact with human CTLA4-Ig Eur. J. Immunogenet. 27 (5-6), 427-430 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AB030652.1 GI:9796387
B-lymphocyte activation antigen B7-2 (CD86).
Felis catus peripheral blood mononuclear cell cDNA to mRNA.
Felis catus
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                                                                                                                                                                                                                                                                                                                                                                                                                                           1-1-1 Yayoi, Bunkyo-ku, Tokyo 113-
(E-mail:yorihiro@crocus.ocn.ne.jp,
Fax:+81-3-5841-8184)
                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence
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AB030652
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llarity 100.0%;
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1245. .1250
/gene="CD86"
a 281 c
                                                      /translation="MGICDSTMGLSHTLLVMALLLSGVSSMKSQAYFNKTGELPCHFT
MSQNISLDELVVFWQDODKLVLYEIFRGKENPQNVHLKYKGRISDKDNWTLRLHNVQ
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SIQGYEEPKEMYFQLMTENSTTKYDYMKKSQNNVTELYNVSISLPFSVPEAHNVSVF
CALKLETLEMLLSLPFNIDAQPKDKDPBQGHFLWIAAVLVMFVVFCGMVSFKTLKKK
KKQPGPSHECETIKRERKESKQTNERVPYHVPERSDEAQCVNILKTASGDKSTTHF"
                                                                                                                                                                                                                                                                                                                                                                                                                           updated (08-Jun-2000).
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SIQGYPEPKEMYFQLNTENSTTKYDTVMKKSQNNVTELLYNISLSPESVPEAHNVSVF
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                                                                                                                                                                                                                                                                                                                                                   /organism="Felis catus"
/db_xref="taxon:9685"
                                                                                                                                                                                                                                   /codon_start=1
                                                                                                                                                                                                                                                     /gene="CD86"
                                                                                                                                                                                                                                                                                                                 /cell_type="peripheral blood mononuclear
l. .1270
                                                                                                                                                                                                                                                                                                                                                                                                           ocation/Qualifiers
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Eutheria; Carnivora; Fissipedia; Felidae; Felis.
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n B7-2 (CD86),
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ORGANISM
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MEDLINE
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312
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                                                                               7,1
                                                                                                                         Local
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A 312
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Prospect Parkway, Ft Collins, CO 80525, USA
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AY007704 2830 | Felis catus CD86 (CD86) mRNA, AY007704
                                                                                                                         Similarity
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Mammalia; Eutheria; Carnivora; Fissipedia; Felidae;
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                                                                                                                                                                           /Protein_id="AAG23342.1"
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/Protein_id="AAG23342.1"
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SIQGYPEFKEMYFQLNTENSTTRKDTVMKKSQNNVTELYNVSILSLFFSVPEAHINVSVF
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KKOPGPSHECETIKRERKESKQTNERVPYHVPERSDEAQCINILKTASGDKSTTHF"
a 570 c 586 g 797 t
                                                                                                                                                                                                                                                                                                                                                                   /gene="CD86"
179. .1177
                                                                                                                                                                                                                                                                                                             /product="CD86"
                                                                                                                                                                                                                                                                                                                                      /note="CD28/CTLA4 counter receptor;
                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Felis catus"
/db_xref="taxon:9685"
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7.9e-23;
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Felis.
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ORGANISM
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AX149548
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Best Local S
Matches 33
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TCAGTGCTTGCTAACTTCAGTCAACCTGAAATA 405
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AX002781
                                                                                                                                                                                                                                                                                                                   Sequence 9
AX149548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Patent: WO 9855607-A 4 10-DEC-1998;
BEBBINGTON CHRISTOPHER ROBERT (GB); CARROLL MILES WILLIAM (GB)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  artificial sequences.
1 (bases 1 to 738)
Bebbington, C.R. and Carroll, M.W.
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                                                1 Similarity
33; Conser
                                                                                                                                                                                                                                                                  synthetic construct. synthetic construct
                                                                                                                                                                  Patent: WO 0136486-A 9 25-MAY-2001;
Oxford Biomedica (UK) Limited (GB)
Location/Qualifiers
                                                                                                                                                                                                         Antibodies
                                                                                                                                                                                                                   artificial sequences.
1 (bases 1 to 738)
Kingsman, A.O., Kingsman, S.M.,
Ellard, F.M. and Myers, K.A.
                                                                                                                                                                                                                                                                                                         AX149548.1 GI:14347987
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Conservative
                                              3.9%; ilarity 100.0%; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /protein_id="CACO4193.1"
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168 c 148 g 207 t
                                                                                                         /db_xref="taxon:32630"
/note="B7-2.5T4.1"
168 c 148 g
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="synthetic construct"
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O; Mismatches
                                              Score 33; DB
Pred. No. 7.9
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AR147737
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AUTHORS
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SOURCE
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AUTHORS
                                                                                              DEFINITION ACCESSION
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AR160451
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ORIGIN
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AR159759
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AR147737
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AR160451
AR160451.1
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Unknown.
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Sequence
AR159759
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Unclassified.
1 (bases 1 to 751)
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         l (bases 1 to 751)
Cai, Z., Sprent, J., Brunmark, A., Jackson, M.
Antigen presenting system and methods for
Patent: US 6255073-A 34 03-JUL-2001;
                                                                                                                                                                                                                                                                 33;
                                                             Unclassified.
                                                                       Unknown
                                                                                      Unknown
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Similarity 100.0%;
33; Conservative (
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Conservative (
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from patent US 6225042.
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REFERENCE
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AR202407
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Best Local S
Matches 33
                     Query Match
Best Local Similarity 100.0%; |
Matches 33; Conservative 0;
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Sequence 34
AR202407
AR202407.1
                                                                                                                                    Immunosuppression
Patent: WO 0037102-A 2 29-JUN-2000;
ROGERS NICHOLA JANE (GB); DORLING
LECHLER ROBERT IAN (GB)
                                                                                                                                                                               Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; 1 (bases 1 to 972)
Rogers, N.J., Dorling, A. and Lechler, R.I.
                                                                                                                                                                                                                                                                          AX027005 972 bp
Sequence 2 from Patent WO0037102.
AX027005
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unclassified.

1 (bases 1 to 751)

Cai, Z. Sprent, J., Brunmark, A., Jackson, M. and Peterson, P.A. Method for producing a synthetic antigen presenting transformed Drosophila cell

Patent: US 6362001-A 34 26-MAR-2002;
                                                                                                                                                                                                                              Homo sapiens
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/organism="unknown"
a 174 c 149 g
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/db_xref="taxon:9606"
204 c 194 g 27
                                                                                                                 Location/Qualifiers
1. .972
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174 c 149 g
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from patent US 6362001.
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7.9e-07;
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AR160450
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DEFINITION
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AR159758
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TITLE
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FEATURES
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TITLE
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1 (bases 1 to 1002)

Cai, Z., Sprent, J., Brunmark, A., Jackson, M. and Peters Antigen presenting system and methods for activation Patent: US 625042-A 33 01-MAY-2001;
Location/Qualifiers

1. .1002
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Sequence 33
AR159758
AR159758.1
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Sequence 33
AR147736
AR147736.1
                                                                                                                                                                                                                                                                           Unclassified.

1 (bases 1 to 1002)

1 (bases 1 to 1002)

Cai.Z., Sprent,J., Brunmark,A., Jackson,M. and Peterson,P.A. Antigen presenting system and methods for activation of T-ce Patent: US 6551627-A 33 26-JUN-2001;
Unclassified 1 (bases 1
                                                     AR160450
Sequence 33 from patent
AR160450
AR160450.1 GI:16224366
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33; Conserva
                       Unknown.
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Pred. No.
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US 6255073
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Antigen
Patent:
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Sequence
AR202406
Direct Submission
Submitted (02-FEB-2001) Pathology and Laboratory Medicine,
University School of Medicine, Winship Cancer Institute, 1
                                                                         Cloning, sequencing, and homology analysis of nonhuman primate Fas/Fas-ligand and co-stimulatory molecules
Immunogenetics 53 (4), 315-328 (2001)
21383618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Drosophila cell
Patent: US 6362001-A 33 26-MAR-2002;
Location/Qualifiers
1. .1002
                                      Villinger, F
                                                                                                                                       1 (bases 1 to 1044)
Villinger, F., Bostik, P., Mayne, A., King, C.L.,
                                                                                                                                                                                                          Macaca nemestrina.
Macaca nemestrina
                                                                                                                                                                                                                                                              Macaca nemestrina CD86 protein AF344851
                                                                                                                             Weiss, W.R. and Ansari, A.A.
                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eutele
Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
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215 c 203 g
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University School of Medicine, Winship Cancer Institute, 1365B
Clifton Rd, Atlanta, GA 30322, USA
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Villinger, F.
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TQLLSSPFSIELEDPQPPPDHIPMITAVLPTVIICVMAFCLILWKWKKKQPRNSYKC
GTNTMEREESEQTKKREKINVPERSDEAQCVFKSLKTPSCDKSDTRF"
                                                                                       /product="CD86 protein precursor"
/protein_id="AAK37540.1"
/dp.xref="G1:13650012"
/translation="MGLSNILFYMAFILSGAAPLKIQAYFNETADLPCOFANSQNRSL
SELVYFWQNQENLYLNEVYLGKEKFDSVHSKYMGRTSFDPESWTLRLHNLQIKDKGLY
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/protein_id="AAK37611.1"
/protein_id="AAK37611.1"
/db_xref="GI:1365491"
/translation="MGLSNILFVMAFLLSGAAPLKIQAYFNETADLPCOFANSONRSL
/EXELVEWOODENLYLAREVYLGKEKFDSYHSKYMGRTRFDPESWTIRLFRNIOIENKGLY
QCIIHHKRPTGMIRIHOMNSELSVLANFSOPEIVPISNITENMYINLTGSIHGYPEE
EKMSVLLRTKNSTIEYDGVMQKSQDNVTELYDVSISLSVSFDVTSNNTIFCVLETDK
TQLLSSPFSIELEDPOPPPDH-PWITAVLPSVVICVMAFCLLLMKWKKKKOPRNSYKC
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                                                                                                                                                                                 /codon_start=1
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/db_xref="taxon:9545"
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Cercocebus torquatus atys
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
Cercopithecinae; Cercocebus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Submitted (02-FEB-2001) Pathology and Laboratory Medicine, Emouniversity School of Medicine, Winship Cancer Institute, 1365B Clifton Rd, Atlanta, GA 30322, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2 (bases 1 to 1062)
Villinger, F.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cloning, sequencing, and homology analysis of Fas/Fas-ligand and co-stimulatory molecules Immunogenetics 53 (4), 315-328 (2001)
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ilarity 100.0%;
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295
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QCIIHHKRPTGMIRIHQMNSELSVLANFSQPEIVPISNITENMYINLTCSSIHGYPEP
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144
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/replace=""
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52. .690
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7.7e-07;
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                                                                                                                                     Direct Submission
Submitted (02-FEB-2001) Pathology and Laboratory Medicine, Emory
University School of Medicine, Winship Cancer Institute, 1365B
Clifton Rd, Atlanta, GA 30322, USA
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                             Cercopithecus aethiops
Eukaryota; Metazoa: Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Cercopithecidae;
                                                                                                                                                                                                                 2 (bases 1 to 1062)
Villinger, F.
                                                                                                                                                                                                                                                               Cloning, sequencing, and homology analysis of Fas/Fas-ligand and co-stimulatory molecules Immunogenetics 53 (4), 315-328 (2001) 21383618
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Villinger, F., Bostik
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AF344861
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784
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970
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519
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/db_xref="taxon:9534"
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Post-processing: Listing first 100 summaries
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                                                                                    encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor
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                                                                                                                                                       invention
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(first entry)

strand of canine B7-2S coding sequence

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AC AAZ27924;
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DT 20-DEC-1999 (first
XX
DE Complementary strand
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KW B7; CTLA4; T cell co
KW allergic reaction; inf
KW graft rejection; inf B7; CTLA4; T cell costimulator allergic reaction; infectious graft rejection; inflammation; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; ergic reaction; infectious disease; tumor development; canine; lft rejection; inflammation; arthritis; atopic dermatitis; ss.

Query Match

Sequence

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                                                                                                                                                The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can expressed by standard recombinant methodology. The nucleic acid molec and the encoded proteins can be used for preventing or treating diseated, autoimmune diseases, allergic reactions, infectious diseases, tues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Canis familiaris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                graft
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Canine B7-2S
                                                                              development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, catt, cattle, sheep or pets. The products can also be used for detection,
                                                                                                                                                                                                                                                                                                          Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI:
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17-APR-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             1999-571822/48
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                                                                                                                                                                                                                                                                                                        Page 109-111; 148pp; English.
       1795
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98US-0062597
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  592 A; 366
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  other;
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Query Match

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Matches
         E7. CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; canine;
graft rejection;
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                                                                            AAZ27922;
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nes 840; Conserv
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arthritis; atopic dermatitis;
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                                                                     The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, and the chocked proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, tallergic reactions, infectious diseases, tumor decompositions.
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                                                                                                                                                                                                                                        standard; DNA;
                                                                                                                                                                                    (first entry)
                                                                                                    inflammation; arthritis; atopic dermatitis;
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Best Local S
Matches 704
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection, diagnosis and drug screening.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI;
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                                             ACTAAGTATGATACTGTCATGAAGAAATCTCAAAATAATGTCACAGAACTCTACAACGTT
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                 TCTATCAGCTTGTCCTCAGTCCCTGAAGCAAGCAATGTGAGCATCTTCTGTGTCCTG
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                                                                                                                                                             ATAATGGTAACTTCTAATAGAACAGAAAATTCTGGCATCATAAATTTGACCTGCTCATCC
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Similarity
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autoimmune and atopic diseases
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98US-0062597.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             graft rejection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Canine B7-2 protein encoding
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                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                           diagnosis and
                                                                                                                                                                                                                                                                                                                                       Claim
                                                                                                                                                                                                                                                                                                                                                            New isolated B7 and CTLA4 nucleic acids, treating, e.g. autoimmune and atopic disc
                                                                                                                                                                                                                                                                                                                                                                                              P-PSDB;
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17-APR-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        allergic reaction;
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                                                                                                           CATTTTACAAATTCTCAAAACATAAGCCTGGATGAGTTGGTAGTGTTTTTGGCAGGACCAG
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DB; AAY41076.
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GATAAGCTGGTTCTGTACGAGCTATACAGAGGCAAAGAACCCCTCAAAATGTTCATCGC
                                                                 TATGGTGCTGCTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAACTGCCATGC
                                                                           TATGGTGCTGCTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGGAGAACTGCCATGC
                       CATTTTACAAATTCTCAAAACATAAGCCTGGATGAGTTGGTAGTGTTTTGGCAGGACCAG
                                                                                                                                                                                                                                      cattle,
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ttion; infectious disease; tumor development; canine;
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                                                                                                                                                                                                                                     sheep or pets.
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98US-0062597
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Pred. No.
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RESULT 8
AAZ27914/c
ID AAZ27914;
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AC AAZ27914

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune allergic reaction; infectious disease; tumor development; car graft rejection; inflammation; arthritis; atopic dermatitis;
                                             Claim 1; Page 101-102;
                                                                                                                                                                                                                                                                                         19-MAR-1998;
17-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Canis familiaris
                                                                                                                                                                                                                                                                                                                                                         19-MAR-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                              W09947558-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Canine B7-2 gene complementary DNA sequence
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                                                                                       isolated B7 and CTLA4 nucleic acids, used ating, e.g. autoimmune and atopic diseases
  invention provides
                                                                                                                                                       1999-571822/48
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98US-0062597
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                                           148pp; English.
    В7
  and
  CTLA4 (T
  cell
costimulatory
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            cat; autoimmune disease;
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proteins)
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RESULT 9
AAZ27931
ID AAZ2
XX
AC AAZ2
XX
AC AAZ2
XX
DT 20-C
XX
DE Feli

AAZ27931 standard; DNA;

996

ВP

Feline B7-2 20-DEC-1999 AAZ27931;

protein coding

sequence

(first entry)

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diagnosis and
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                CAACTTGAGTCAATGAAGCTTCCCCTCCCTACCTTATAATATAGA
CAACTTGAGTCAATGAAGCTTCCCTCCCTACCTTATAATATAGA 1189
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                                                                         TCTATCAGCTTGTCCTTCTCAGTCCCTGAAGCAAGCAATGTGAGCATCTTCTGTGTCCTG
                                                                                                                                    ACTAAGTATGATACTGTCATGAAGAAATCTCCAAAATAATGTCACAGAACTCTACAACGTT
                                                                                                                                                                             ATACAAGGTTACCCAGAACCCAAGGAGATGTATTTTTTGGTAAAAACCGAGAATTCAAGT
                                                                                                                                                                                            ATACAAGGTTACCCAGAACCCAAGGAGATGTATTTTTTGGTAAAAACCGAGAATTCAAGT
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                                                                                                                    ACTAAGTATGATACTGTCATGAAGAAATCTCAAAATAATGTCACAGAACTCTACAACGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1897 BP; 529 A; 383 C; 400 G;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sheep or pets. The products can also be used for detection, drug screening.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     585 T; 0 other;
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RESULT 10
AAZZ7932/c
ID AAZZ79
XX AAZZ79
XX AAZZ79
XC AAZZ79
XC COmple
CXX Comple
XX B7; CT
KW B7; CT
KW B11erg
XX graft
XX graft
XX Felis
XX W09947
XX W09947
XX 23-SEP
PD 23-SEP
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                                                                                                                                                                                                                                                                                          Дβ
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                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 61
                                                                                                                                                                                                                                                                                                                                                                                                                   The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs,
           23-SEP-1999
                                  WQ9947558-A2
                                                        Felis catus
                                                                                     B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; feline;
                                                                                                                     Complementary strand of feline B7-2 coding
                                                                                                                                             20-DEC-1999
                                                                                                                                                                   AAZ27932;
                                                                                                                                                                                         AAZ27932 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                              Sequence 996 BP; 319 A; 219 C; 203 G; 255 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                    diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New isolated B7 and CTLA4 nucleic acids, used to develop products for treating, e.g. autoimmune and atopic diseases -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sim G,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; feline; graft rejection; inflammation; arthritis; atopic dermatitis; ss.
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17-APR-1998;
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DB; AAY41079.
                                                                            rejection;
                                                                                                                                                                                                                                                                                                                                                                                                              cattle,
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                                                                                                                                                                                                                                                                                                                                               Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                   and drug screening.
                                                                                                                                                                                                                                                                                                                                    7.3%;
ilarity 100.0%;
Conservative
                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                              sheep or pets. The products can also be used for detection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98US-0078765
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 99WO-US06187
                                                                              inflammation;
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Pred. No.
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RESULT 11
AAZ34838
ID AAZ34
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection, diagnossis and drug screening.
                                                                                                                                                                                                         Felis
                                                                                                                                                                  CDS
(SCHE
                                       01-MAY-1998;
                                                                    30-APR-1999;
                                                                                               11-NOV-1999
                                                                                                                         W09957295-A1
                                                                                                                                                                                                                                                                            Feline CD86
                                                                                                                                                                                                                                                                                                     28-FEB-2000
                                                                                                                                                                                                                                                                                                                                  AAZ34838;
                                                                                                                                                                                                                                                                                                                                                            AAZ34838 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; Page 124-125; 148pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New isolated B7 and CTLA4 nucleic acids, used to develop products treating, e.g. autoimmune and atopic diseases -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sim G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19-MAR-1998;
17-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   19-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     treating, e.g. autoimmune and atopic diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (HESK-) HESKA
                                                                                                                                                                                                                                  immunomodulator; tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               863 A 863
                                                                                                                                                                                                                                                                                                                                                                                                                                                       131 A 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local
                                                                                                                                                                                                                                                 B7-2;
                                                                                                                                                                                                          domesticus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       61;
SCHERING-PLOUGH LTD.
SCHERING-PLOUGH VETERINARY CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         996 BP; 255 A; 203 C; 219 G; 319 T; 0
                                                                                                                                                                                                                                               feline; cat;
                                                                                                                                                                                                                                                                            (B7-2) cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                    (first entry)
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                                         98US-0071711
                                                                    99WO-US09504
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98US-0062597
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                                                                                                                                                                  63..1052
                                                                                                                                                                           Location/Qualifiers
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                                                                                                                                                                                                                                                                                                                                                             cDNA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  7.3%;
                                                                                                                                                                                                                                    cancer; therapy; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        XS.
                                                                                                                                                                                                                                                 recombinant virus; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 61;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DB 20;
2.4e-20;
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ВJ,

Cochran MD

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AAZ34785
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AAZ
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AC
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AAZZ
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CD8
Cat
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CD8
KW FEIV
KW Feli
KW Feli
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CDS
FFT CDS
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AAZ34785
PR 01-N
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        encodes feline CD28, CD80, CD86 or CTLA-4 protein, or their immunogenic fragments, and is expressed when the recombinant virus is introduced into a suitable host. She invention also provides: a recombinant virus further comprising a foreign nucleic acid encoding an immunogen derived from a feline pathogen; recombinant viruses capable of enhancing an immune response to protect against disease; recombinant viruses expressing antisense sequences, capable of suppressing an immune response in a feline, e.g. for treatment of autoimmune disease or transplant rejection; and recombinant viruses expressing DNA encoding CD80 and/or CD86 used to reduce or calminate a transplant and combinant viruses expressing DNA encoding CD80 and/or CD86 used to reduce the combinant viruses expressing DNA encoding CD80 and/or CD86 used to reduce the combinant viruses expressing DNA encoding CD80 and/or CD86 used to reduce the combinant viruses expressing DNA encoding CD80 and/or CD86 used to reduce the combinant viruses expressing DNA encoding CD80 and/or CD86 used to the combinant viruse expressing DNA encoding CD80 and/or CD86 used to the combinant viruse expressing DNA encoding CD80 and/or CD86 used to the combinant viruse expressing DNA encoding CD80 and/or CD86 used to the combinant viruse expressing DNA encoding CD80 and/or CD86 used to the combinant viruse expressing DNA encoding CD80 and/or CD86 used to the combinant viruse expressing DNA encoding CD80 and/or CD86 used to the combinant viruse expression and the combinant viruse express
  01-MAY-1998;
                                                        30-APR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CD86; B7-2; ligand; cat; vaccine; feline immunodeficiency virus; FIV; feline leukaemia virus; feline infectious peritonitis virus; feline panleukopaemia virus; feline callcivirus; feline reovirus-3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        or CTLA-4 (and/or their co-stimulatory ligands CD80 and CD86) regulates T cell proliferation and cytokine release. The invention relates to a recombinant virus that contains at least one foreign nucleic acid, inserted into a nonessential genomic region, that
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI;
                                                                                                                                                                                                                                                                                                                                           Felis domesticus.
                                                                                                                                                                                                                                                                                                                                                                                                                        feline rotavirus; feline coronovirus; feline syncytial virus; feline sarcoma virus; feline herpesvirus; feline Borna disease; rables virus; chlamydia; Toxoplasmosis gondii; Dirofilaria immitis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cat CD86 (B7-2) cDNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAZ34785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        This is the nucleotide sequence of cDNA coding for feline CI (B7-2). The cDNA was isolated from feline peripheral blood mononcuclear cell cDNA by PCR. Manipulating the expression of mononcuclear cell cDNA by PCR.
                                                                                                                                                                     WO9957271-A2
                                                                                                                                                                                                                                                                                                                                                                                                parasite; autoimmune disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAZ34785 standard; cDNA; 1080
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        196 A 196
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 131 A 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 71 CTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAACTGCCATGCCATTTTACAA 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      reduce or eliminate a tumour in cats.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAACTGCCATGCCATTTTACAA 195
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2000-062155/05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   61;
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                                                        99WO-US09502
98US-0071699
                                                                                                                                                                                                                                                     Location/Qualifiers 63..1055
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                             transplant rejection; therapy; ss
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3. 2.3e-20;
0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 1080;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
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AAL46840
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    feline calicivirus, feline reovirus 3, feline rotavirus, feline coronovirus, feline syncytial virus, feline sarcoma virus, feline herpesvirus, feline Borna disease virus, rabies virus, chlamydia, Toxoplasmosis gondii, Dirofilaria immittis, or a flea, bacterial pathogen, or parasite (all claimed). Vaccines capable of enhancing an immune response, and vaccines capable of suppressing an immune response (suitable for treating an autoimmune disease or tissue or organ transplant rejection) are claimed. The
                            Cat; CD28; CD80; CTLA-4; CD86; immunogen; vaccine; viral infection; feline immunodeficiency disease; feline infectious peritonitis; feline leukaemia virus; cancer; degenerative disease; autoimmune disease;
                                                                                                         Feline CD86 coding sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          the ability to regulate activation of T-lymphocytes. The invention provides isolated nucleic acids encoding feline CD86 ligand, feline CD80 (B7-1) ligand, feline CD28 receptor or feline CTLA-4 (CD152) receptor, as well as vectors comprising the nucleic acids, and polypeptides encoded by the nucleic acids. It also provides vaccines comprising the CD80, CD86, CD28 or CTLA-4 polypeptides and further comprising immunogens derived from pathogens, especially feline immunodeficiency virus (FIV), feline leukaemia virus, feline infectious peritonitis virus, feline panleukopaenia virus, feline infectious peritonitis virus, feline panleukopaenia virus,
            virucide; immunomodulator; cytostatic;
                                                                                                                                                    08-AUG-2002
                                                                                                                                                                                           AAL46840;
                                                                                                                                                                                                                             AAL46840 standard; cDNA; 1080
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 1080 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       comprising nucleic acid encoding feline CD86 ligand or feline soluble CD80 ligand is designated PSI-2#19-2/011298 (AFCC 209821). The coexpression of CD86 with the costimulatory molecules CD28 (see AAY32279) and a tumour antigen or an antigen from a pathogenic organism has the ability to activate or enhance activation of T-lymphocytes. Coexpression of CD86 with CTLA-4 (see AAY32280) has
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (B7-2) ligand (see AAY32278). It was obtained follow peripheral blood mononuclear cell mRNA and RACE-PCR. comprising nucleic acid encoding feline CD86 ligand of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 6; Fig 3A; 186pp; English
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P-PSDB; AAY32278.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protocols.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     nucleic acids
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (TEXA ) TEXAS
                                                                                                                                                                                                                                                                                                                               196
                                                                                                                                                                                                                                                                                                                                                                     131
                                                                                                                                                                                                                                                                                                                                                                                                        71 CTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAACTGCCATGCCATTTTACAA 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     is the nucleotide sequence of cDNA encoding feline CDNb Tt was obtained following RT-PCR of
                                                                                                                                                                                                                                                                                                                               A 196
                                                                                                                                                                                                                                                                                                                                                                     A 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A & M SYSTEM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            333 A; 233 C; 235 G; 279 T; 0 other;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     for gene therapy or antisense therapy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 61;
Pred. No.
                                                                                                                                                                                                                               ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
        immunodeficiency; gene; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 21; 1
. 2.3e-20;
ches 0;
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Felis catus

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ABK489

ABK48

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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The present invention relates to a recombinant virus comprising at least one foreign nucleic acid encoding a protein selected from feline cytocoxic T lymphocyte accessory molecules CD28, CD80, CD80 or CTLA-4, which is capable of expression when the virus is introduced into an appropriate host. The virus can be administered to the feline in order to elicit or enhance an immune response to prevent or treat feline immunodeficiency disease, feline leukemia, feline infectious peritonitis, cancers, degenerative and autoimmune diseases and immunodeficiency. The present sequence is the coding sequence of a cytotoxic T lymphocyte accessory molecule described in the exemplification of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  New recombinant virus, useful for immunizing felines to prevent or treat feline immunodeficiency virus, comprises foreign nucleic acid encoding feline cytotoxic T lymphocyte accessory molecules CD28, CD8 CD86 or CTLA-4
                                                                                                                                                                                 organ transplant; toxoplasmosis gondeline leukaemia; FeLV; calcivirus;
                                                                                                         Felis
                                                                                                                                                              cornavirus;
                                                                                                                                                                                                        feline infectious peritonitis; gene; ss; CD80 ligand; CD86 l
CD28; receptor; CTLA-4; vaccine; rabies; autoimmune disease;
organ transplant; toxoplasmosis gondii; flea; parasite; panl
                                                                                                                                                                                                                                                                                                                                                  cDNA encoding
                                                                                                                                                                                                                                                                                                                                                                                                          02-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABK48230;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABK48230 standard; cDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure; Fig 3; 77pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (COCH/)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       131
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      71 CTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAACTGCCATGCCATTTTACAA 130
                                                                                                                                                                                                                                                                                        vaccine; feline immunodeficiency virus; FIV; immunosuppressant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                2002-415200/44.
                                                                                                         sp.
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COCHRAN M D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity 100.0%; 61; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1080
                                                                                                                                                              herpes;
                                                                                                                                                                                                                                                                                                                                                                                                       (first
                                                                                                                                                                                                                                                                                                                                                feline CD86 protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BP;
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                         Location/Qualifiers 63..1052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     333 A;
                                                                                                                                                                 borna disease.
                                                                                                                                                                                                                                                                                                                                                                                                       entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ð
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 61; pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     235 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                       rotavirus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     279 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           2.3e-20;
hes 0;
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                                                                                                                                                                                    panleukopaenia;
type 3;
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AAZ27929 ID AAZ

AAZ27929 standard;

DNA;

2830

ВP

RESULT 15

Ър δÃ В 8

A 196

71 CTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAACTGCCATGCCATTTTACAA 130

Mismatches

Indels

0;

Gaps

0;

Best Matches

**Loca** L

Similarity

61;

Conservative

XXXXXX

20-DEC-1999 AAZ27929

(first entry)

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Query Match
                                                                                                                                                                                                                                             invention is useful for redirecting an immunor response in a feline to an immunogen such as rables virus, chlamydia, toxoplasmosis gondii, flea, feline immunodeficiency virus, feline leukaemia (FeLV), feline infectious peritonitis virus (FIP), panleukopaenia virus, calcivirus, reovirus type 3, rotavirus, cornavirus, syncitial virus, herpes virus, sarcoma virus, borna disease virus or a parasite. The protein sequences may be further utilised to promote growth in homologous or heterologous
                                                                                                                                                                                                                                                                                                                                                                           these receptor proteins. A vaccine is useful for inducing immunity on enhancing an immune response in a cat. The protein sequences of the invention are useful for suppressing an immune response in a feline suffering from an autoimmune disease or the recipient of a tissue or organ transplant. A vector containing the DNA sequences of the
                                                                                                                CTLA-4 takes advantage of the natural process of regulation rather than adding foreign substances that could have multiple, even detrimental effects on overall or long term health. The present sequence represents a cDNA encoding the feline CD86 protein of the invention.
                                                                                                                                                                                      feline species. Enhancement of immunity through the interaction of soluble CD80 or soluble CD86 with CD28 or CTLA-4 or inhibition of an immune response through the interaction of feline CD80 or CD86 with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This invention relates to the DNA and protein sequences encoding a soluble CD80 ligand, soluble CD86 ligand, soluble and membrane bound CD28 receptor and soluble or membrane bound CTLA-4 receptor. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (COLL/) COLLISSON E W. (HASH/) HASH S M. (CHOI/) CHOI I.
                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Polynucleotide encoding polypeptide of CD80 ligand, CD86 ligand, CD28 receptor or CTLA-4 receptor as vaccine for inducing immune response in feline suffering from autoimmune disease or tissue or organ transplant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        invention also relates to a vaccine comprising an effective amount of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  P-PSDB; AAU78121
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6; Fig 3A;
                                                                                 1080
                                                                                 BP;
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7.3%; 5c.
100.0%; Pr
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                                                                                 A; 233 C;
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                     Score 61;
Pred. No.
                                                                                 235
                                                                               G;
                                                                             279 T; 0
                       DB 24;
2.3e-2(
                                                                                   other;
                                            Length 1080;
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or

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RESULT 16
AAZ27930/c
ID AAZ279
XX AAZ279
XX AAZ279
XY 20-DEC
XX Feline
XX B7; CT
KW B7; CT
KW B1; CT
KW B1erft
XX ST
XX W09947
XX W09947
XX W09947
XX W09947
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                                                                                                                                                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Similarity
                                                                                 B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; feline; graft rejection; inflammation; arthritis; atopic dermatitis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection, disparsate and atopic pets.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; feline; graft rejection; inflammation; arthritis; atopic dermatitis; ss.
                                                                                                                                                                                                       AAZ27930;
                                                                                                                                                                                                                                 AAZ27930 standard; DNA; 2830 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
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   23-SEP-1999
                            WO9947558-A2
                                                                                                                                         Feline B7-2 gene complementary DNA sequence.
                                                                                                                                                                         20-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               diagnosis
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New
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17-APR-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   isolated B7 and CTLA4 nucleic acids, used
                                                                                                                                                                                                                                                                                                                                                                               CTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAACTGCCATGCCATTTTACAA 130
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DB; AAY41079.
                                                         catus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              and drug screening.
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ilarity 100.0%;
Conservative
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98US-0062597
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                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                        Score 61; DB Pred. No. 2.3 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ç
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2.3e-20;
thes 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 2830;
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RESULT 17
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Best Local S
Matches 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection, diseases is and drug coresion.
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                                                                          mat_peptide
                                                                                                                                              CDS
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                                                                                                                                                                                           Chimeric
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1; Page 121-123; 148pp; English.
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                    03-APR-1997
                                                                                                 sig_peptide
                                                                                                                                                                                                                 Xenotransplantation; graft rejection; cell interaction; pig;
CD68; monoclonal antibody; chimeric antibody; diagnosis; ss.
                                                                                                                                                                                                                                                    Chimeric human/porcine CD86 DNA construct
                                                                                                                                                                                                                                                                           16-JUN-1997
                                                                                                                                                                                                                                                                                                  AAT62939;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
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17-APR-1998;
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                                           WO9711971-A1
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                                                                                                                                                                                                                                                                                                                                                                                                     131 A 131
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                                                                                                                                                                                                                                                                                                                                                                                                                           CTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAACTGCCATGCCATTTTACAA 2520
                                                                                                                                                                                                                                                                                                                                                                                                                                     CTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAACTGCCATGCCATTTTACAA 130
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       l Similarity
61; Conserv
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                                                                                                                                                                                 sus
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                                                                                                                                                                                            Homo sapiens;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative (
                                                                                                                                                                                 scrofa.
                                                                                                                                                                                                                                                                          (first entry)
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98US-0062597
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                                                                                  7..81
/*tag=
                                                                                                                                              Location/Qualifiers 7..749
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                                                                                                                       /note=
                                                                                                                                   /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sellins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     797
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        screening
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A; 586 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              7.3%;
                                                                                                             "the porcine CD86 sequence spans nucleotides 19-597"
                                                                                      b
                                                                O
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                                                                                                                                                                                                                                                                                                                        764
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KS
                                                                                                                                                                                                                                                                                                                        ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 61;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              atopic diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  570 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 20,
3. 2.3e-20;
0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  877 T;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  . 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 2830;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         develop products for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
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27-SEP-1996;

96WO-US15575

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RESULT 18
AAA49661
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   lymphocytes. A second PCR fragment encoding a truncated N-terminus was prepd. by 5'RACE PCR. The partial gene fragment was fused to the C-terminal 49 amino acids of the human CDB6 IGC domain by overlapping PCR; the 3' primer included 15 nucleotides encoding a histidine tag. Antibodies to porcine CDB6 protein are useful for diagnosing human rejection of porcine centransplants and for improving xenotransplantation of porcine cells, tissues and organs
                                                                                                                                                                                                                                                                                                                                            CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A DNA construct (AAT62939) codes for a chimeric human/porcine CD86 (B7-2) cell adhesion molecule. RT-PCR was used to amplify an internal segment of the porcine CD86 gene from RNA isolated from lipopolysaccharide-stimulated potcine peripheral blood by the code of the cod
Lechler RI,
                                                       (MEML-) ML LAB PLC.
                                                                                                          19-DEC-1998;
23-OCT-1999;
                                                                                                                                                                             17-DEC-1999;
                                                                                                                                                                                                                           29-JUN-2000
                                                                                                                                                                                                                                                                         WO200037102-A2
                                                                                                                                                                                                                                                                                                                                                                                                             Sus scrofa
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Co-stimulatory molecule; CD86; B7-2; pig; immunosuppressive; xerotransplantation; organ transplant; vaccine; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            25-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAA49661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAA49661 standard; cDNA; 1050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 764 BP; 218 A; 197 C; 148 G; 201 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 porcine organs, tissues or cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Antibodies binding to porcine but not proteins - useful to treat and assay
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Rother
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Evans MJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (ALEX-) ALEXION PHARM INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               26-SEP-1996;
28-SEP-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            costimulatory
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1997-212855/19.
DB; AAW14944.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     human recipients.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matis LA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Page 69-70; 105pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (first entry)
            Rogers NJ,
                                                                                                          98GB-0027921
99GB-0025015
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             96US-0004489.
95US-0004489.
                                                                                                                                                                             99WO-GB04200
                                                                                                                                                                                                                                                                                                                                          Location/Qualifiers 36..1013
                                                                                                                                                                                                                                                                                                                  /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               molecule CD86 (B7-2) cDNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mueller
                                                                                                                                                                                                                                                                                                                      D
              Dorling
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 44;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EE,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mueller
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       human cell interaction
for rejection of xenografted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      8.1e-12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      JP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 764;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rollins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ß
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Gaps
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RESULT 19
AAZ27935
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           with hybrid synthetic peptides comprising a T cell epitope conjugated to sequences of the porcine costimulatory molecules CD80, CD86 or CD40. Peptides that induce antibodies specific for regions of costimulatory molecules involved in binding to their counter-receptors on human cells (CD28 and CD14) are capable of blocking the delivery of costimulation. Once the antibody response has been induced, the transplanted organ will recall this response be to the expression of the costimulatory molecules, thereby sustaining the response, and providing an endogenous mechanism of costimulatory blockade. The method is useful for improving the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              costimulatory blockade. The method is useful for improving the tolerance of a host to xenografts, particularly porcine pancreatic islet cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    was obtained by PCR amplification of pig cDNA using primers (see AAA49662-63) based on a published pig B7-2 sequence. The invent relates to a novel strategy to inhibit costimulation by porcine
                             WPI; 1999-571822/48
P-PSDB; AAY41081.
                                                                                                                                                                                                                                                                                                                    graft rejection; inflammation; arthritis; atopic dermatitis; ss
                                                                                                                                                                                                                                                                                                                                 B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmallergic reaction; infectious disease; tumor development;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAZ27935 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        cells of human T cells, with particular importance in the context of xerotransplantation of porcine organs. Recipients are immunised
                                                                           Sim G,
                                                                                                           (HESK-) HESKA CORP
                                                                                                                                          19-MAR-1998;
17-APR-1998;
                                                                                                                                                                                          19-MAR-1999;
                                                                                                                                                                                                                        23-SEP-1999
                                                                                                                                                                                                                                                       W09947558-A2
                                                                                                                                                                                                                                                                                     Felis catus
                                                                                                                                                                                                                                                                                                                                                                              Feline B7-2 protein (smaller fragment) encoding
                                                                                                                                                                                                                                                                                                                                                                                                                20-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                              AAZ27935;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 1050 BP; 305 A; 260 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present sequence is that of cDNA clone CD86(i), whi pig co-stimulatory molecule CD86 (B7-2) (see AAY95321).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Fig 3; 81pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Novel methods for improving tolerance to a xenograft comprising immunizing a mammal with a T-cell epitope and a B-cell epitope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                P-PSDB; AAY95321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           398
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       381 TTCTGACCTATCAGTGCTTGCTAACTTCAGTCAACCTGAAATAA 424
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TTCTGACCTATCAGTGCTTGCTAACTTCAGTCAACCTGAAATAA 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000-442537/38.
                                                                           Yang S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity 100.
44; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                          98US-0078765
98US-0062597
                                                                                                                                                                                          99WO-US06187
                                                                           Sellins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Score 44; DB; Pred. No. 8.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  227 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DB 21; I
8.1e-12;
thes 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  258 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                   cat; autoimmune disease;
                                                                                                                                                                                                                                                                                                                                                                                 DNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 1050;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   which
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The clone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
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0,

New isolated B7 and

CTLA4 nucleic acids, used to develop

products

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ARESULT 20
ARAZ7936/
ID ARAZ27936/
ID ARZ27936/
AC ARZ2
AC ARZ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            밁
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    δÃ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local S
Matches 42
                                                  The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection, diagnossis and drug screening.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; feline; graft rejection; inflammation; arthritis; atopic dermatitis; ss.
                                                                                                                                                                                                                                                                                                                                                              Claim 1; Page 129; 148pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sim G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19-MAR-1998;
17-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WO9947558-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAZ27936;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAZ27936 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 359 BP; 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Felis catus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Feline B7-2 gene (smaller fragment) complementary DNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       540 TACTAAGTATGATACTGTCATGAAGAAATCTCAAAAATAATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity tes 42; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                             isolated B7 and CTLA4 nucleic acids, used ating, e.g. autoimmune and atopic diseases {\bf r}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1999-571822/48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TACTAAGTATGATACTGTCATGAAGAAATCTCAAAATAATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Yang S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       e.g. autoimmune and atopic diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   and drug screening.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               sheep or pets. The products can also be used for detection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              127-128;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            98US-0078765
98US-0062597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99WO-US06187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sellins KS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; 79 C; 69 G; 83 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             5.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           359
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 42; Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 20; I
8.2e-11;
                                                                                                                                                                                                                                                                                                                                                                                                                                       to develop products for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                359;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
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BP;

83 Α.

69

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79

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RESULT 22
AAZ27934/c
ID AAZ27934 standard; D
XX
AC AAZ27934;
XX
XX

DNA;

ВP

Ş В

60

540 TACTAAGTATGATACTGTCATGAAGAAATCTCAAAATAATGT 581

TACTAAGTATGATACTGTCATGAAGAAATCTCAAAATAATGT

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Вb
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                        Query Match
 Matches
                                                                                                 The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs,
                                                                                                                                                                                                                            New isolated B7 and CTLA4 nucleic acids, used treating, e.g. autoimmune and atopic diseases {\bf r}
                                                                                                                                                                                                                                                                                                                                                       19-MAR-1998;
17-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              graft rejection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; feline;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Feline
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAZ27933;
                                                 Sequence
                                                                                                                                                                                                      Claim 1;
                                                                                                                                                                                                                                                                                WPI; 1999-571822/48.
                                                                                                                                                                                                                                                                                                      Sim G,
                                                                                                                                                                                                                                                                                                                                                                                                                                              W09947558-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAZ27933 standard;
                                                                                                                                                                                                                                                                 P-PSDB; AAY41080.
                                                                                                                                                                                                                                                                                                                               (HESK-) HESKA CORP.
                                                                                                                                                                                                                                                                                                                                                                                            19-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                     23-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      540 TACTAAGTATGATACTGTCATGAAGAAATCTCAAAATAATGT 581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21
Local Similarity nes 42; Conserv
                                                                          , cattle,
nosis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                B7-2
                                                                                                                                                                                                                                                                                                     Yang S,
                                                                                                                                                                                                     Page 125-126; 148pp;
                                                 509 BP; 170 A; 109 C; 106 G; 124 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                          sheep or pets. The products can also be used drug screening.
                                                                                                                                                                                                                                                                                                                                                       98US-0078765.
98US-0062597.
                                                                                                                                                                                                                                                                                                                                                                                            99WO-US06187.
                                                                                                                                                                                                                                                                                                       Sellins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              inflammation; arthritis; atopic dermatitis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DNA;
             100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (larger
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   5.0%;
                        5.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               fragment) encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0
 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 42;
Pred. No.
              Score 42;
Pred. No.
                                                                                                                                                                                                     English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
 Mismatches
             DB 20; 1
. 8.2e-11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 20;
8.2e-11;
                                                                                                                                                                                                                                  to develop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA
                        Length 509;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 359;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
 Indels
                                                                                                                                                                                                                                          products
                                                                                         for detection
 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Gaps
 Gaps
 0
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RESULT 23
AAV80293
ID AAV80
XX AAV80
AC AAV80
XX IS-MA
AC AAV80
XX
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ş
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                         Tumour interacting protein; cancer; gene therapy; vector; 5T4 antigen; monoclonal antibody; single chain antibody; mouse; human; B7-2; co-stimulatory molecule; ss.
       04-JUN-1998;
                                                                          To-DEC-1998
                                                                                                                                                                                                                                                      Chimeric -
                                                                                                                                          W09855607-A2
                                                                                                                                                                                                                    Chimeric
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor decompositions of the control of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15-MAR-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, catts, cattle, sheep or pets. The products can also be used for detection,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAV80293;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAV80293 standard; cDNA; 738
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 509 BP; 124 A; 106 C; 109 G; 170 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 treating,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New isolated B7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (HESK-) HESKA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                allergic reaction; infectious disease; tumor development; feline; graft rejection; inflammation; arthritis; atopic dermatitis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             540 TACTAAGTATGATACTGTCATGAAGAAATCTCAAAATAATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      19-MAR-1998;
17-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WO9947558-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Felis catus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Feline B7-2 gene (larger fragment) complementary DNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                <u>ر</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CTLA4; T cell costimulatory protein; dog; cat; autoimmune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TACTAAGTATGATACTGTCATGAAGAAATCTCAAAAATAATGT 409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1999-571822/48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B7-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Yang S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Page 127; 148pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               and drug screening.
                                                                                                                                                                                                                synthetic
                                                                                                                                                                                                                                                      Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   extracellular domain and linker
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
98WO-GB01627
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7 and CTLA4 autoimmune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      98US-0078765
98US-0062597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           99WO-US06187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sellins
                                                                                                                                                                                                                                                                                                                  co-stimulatory molecule; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       5.0%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         nucleic acids, used and atopic diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 42;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DB 20;
8.2e-11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    . 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 509;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           develop
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           products
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
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Single chain

antibody;

body; ScFv; inflammatory autoimmune disease; cent

disease; arthritis;

Nucleotide sequence of a B7-2.5T4.1 fusion protein

Homo sapiens Synthetic. hypersensitivity; autoimmune disease; central nervous system disorder; Parkinson's disease; periodontal disease; cardiopulmonary disease; cardiovascular disease; gastrointestinal disorder; infection; diabetes

disorder; ss.

Helicobacter-related disease;

IJ AAF8973

AAF89731 standard;

DNA;

ΒP

0

AAF89731;

23-JUL-2001

(first entry)

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В
                                                                                                                                                                                                     Ωy
RESULT
                                                                                                                                                                                                                                  This DNA sequence encodes a polypeptide (see AAW86005) comprising CC the extracellular domain (amino acids 1-215) of human co-stimulatory CC molecule B7-2 joined to a C-terminal flexible peptide linker. This CC is part of the coding sequence of B7-2.574.1 co-stimulatory domain, CC a DNA sequence encoding a fusion protein comprising the B7-2 extracellular domain joined via the linker to an scFv (see AAW86002) CC derived from murine 574 monoclonal antibody. The cDNA can be compared into vector pCI to allow expression of the fusion protein CC inserted into vector pCI to allow expression of the fusion protein CC inserted into vector pCI to allow expression of the fusion protein CC inserted into cells. The trophoblast cell surface antigen defined CC by 574 is expressed at high levels on the cells of a wide variety CC nucleotide sequence coding for a tumour interacting protein (TIP) CC encodes a protein of interest (POI), the vector being capable of CC delivering the NOI and/or POI to the tumour recognised by the TIP. CC Delivery can be in vivo or ex vivo. The vector is used to treat cancer, and may also be used as a gene delivery system for introducing at least 1 gene encoding a TIP (preferably a tumour interaction to bind specifically to CD28 and CTLA-4 present on human creations.)
                                                                                                                               Matches
                                                                                                                                               Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           04-JUL-1997;
04-JUN-1997;
20-JUN-1997;
                                                                                                                                                                                                   Sequence 738 BP; 215 A; 168 C; 148 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New vector encoding a tumour interacting protein for treating cancer contains a desired nucleotide sequence and/or protein which recognises tumours, and is used as a gene delivery system to treat
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                                                                                                                             Conservative
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                                                                                                                                           3.9%; Score 33;
100.0%; Pred. No.
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/cgn2_6/ptodata/2/pubpna/US06_PUBCOMB.seq:*
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US-09-826-025-11

US-09-826-025-11

US-09-826-025-11

US-09-826-025-11

US-09-826-035-11

US-09-837-867A-22

US-09-962-969-24

US-09-837-867A-22

US-09-837-867A-22

US-09-9837-867A-22

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   Sequence 5, Appli
Sequence 7817, Ap
Sequence 7754, Ap
Sequence 34, Appl
Sequence 11, Appl
Sequence 11, Appl
Sequence 25, Appl
Sequence 27, Appl
Sequence 22, Appl
Sequence 22, Appl
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11 US-09-962-969-41
12 US-10-107-706-2
12 US-10-007-706-2
13 US-09-784-952-62
14 US-10-107-706-3
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16 US-09-786-92-936-31
17 US-09-918-935-459-1073
18 US-09-786-92-936-31
10 US-09-786-92-936-31
10 US-09-786-93-936-31
10 US-09-7
Sequence 38, Appl Sequence 37, Appl Sequence 31, Appl Sequence 31, Appl Sequence 31, Appl Sequence 31, Appl Sequence 260, App Sequence 27, Appl Sequence 41, Appl Sequence 52, Appli Sequence 53, Appli Sequence 62, Appli Sequence 63, Appli Sequence 54, Appli Sequence 55, Appli Sequence 57, Appli Sequence 1111, Appl Sequence 1113, Appl Sequence 1105, Appl Sequence 1105, Appl Sequence 1105, Appl Sequence 11753, Appl Sequence 11754, Appl Sequence 17, Appli Sequence 17, Appli
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RESULT 1
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                                                                                                                                                                                                                                                                                       Sequence 5, Application US/09303040 Patent No. US20020051792A1
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                                                                                       SEQ ID NO 5
                                                                                                                                                        APPLICANT: Winslow, Barbara J.

APPLICANT: Cochran, Mark D.

TITLE OF INVENTION: Recombinant Virus Expressing Foreign DNA Encoding TITLE OF INVENTION: Feline CD80, Feline CD86, Feline CD28, Feline CTL.

TITLE OF INVENTION: Feline Interferon-gama And Uses Thereof FILE REFERENCE: 54957-B

CURRENT APPLICATION NUMBER: US/09/303,040

CURRENT FILING DATE: 1999-04-30

CURRENT FILING DATE: 1999-04-30
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EARLIER FILING DATE: 1998-05-01
NUMBER OF SEQ ID NOS: 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: Feline CD80, Feline CD86, Feline CD28, and Feline TITLE OF INVENTION: CTLA-4 Nucleic Acid and Polypeptides FILE REFERENCE: 54.954

CURRENT APPLICATION NUMBER: US/09/303,510A

CURRENT FILING DATE: 1999-04-30
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: DNA
ORGANISM: Feline
                                         LENGTH: 1080
TYPE: DNA
ORGANISM: feline CD86
NAME/KEY: CDS
LOCATION; (63)..(1052)
                              FEATURE:
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US-09-960-352-7603
US-09-983-965-1137
US-09-918-995-8402
US-10-092-154-1353
US-09-918-995-17222
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Pred. No. 3.6e-23;
0; Mismatches 0;
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Sequence 35830, A
Sequence 7603, Ap
Sequence 1137, Ap
Sequence 8402, Ap
Sequence 1353, Ap
Sequence 1353, Ap
Sequence 17222, A
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; LOCATION: (535)
; OTHER INFORMATION: n=A,T,C
US-09-796-692-7817
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PRIOR FILING DATE: 2000-04-27
PRIOR APPLICATION NUMBER: 60/200,303
PRIOR FILING DATE: 2000-04-28
PRIOR APPLICATION NUMBER: 60/200,779
PRIOR FILING DATE: 2000-04-28
PRIOR FILING DATE: 2000-04-28
PRIOR APPLICATION NUMBER: 60/200,799
PRIOR APPLICATION NUMBER: 60/200,999
PRIOR FILING DATE: 2000-05-01
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Best Local S
Matches 61
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SOFTWARE: FastSEQ for Windows Version
SEQ ID NO 7817
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                                                                               Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Gaiger, Alexander APPLICANT: Algate, Paul A. APPLICANT: Mannion, Jane
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE DETECTION, DIAGNOSIS TITLE OF INVENTION: HEMATOLOGICAL MALIGNANCIES
FILE REFERENCE: 2077.001200
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: 60/218,950 PRIOR FILING DATE: 2000-07-14 PRIOR APPLICATION NUMBER: 60/222,903
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION NUMBER: 60/202,084
PRIOR FILING DATE: 2000-05-04
PRIOR APPLICATION NUMBER: 60/206,201
PRIOR FILING DATE: 2000-05-22
PRIOR FILING DATE: 2000-05-22
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PRIOR APPLICATION NUMBER: 60/223,416
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                                                                                                                                                                                                                                           NAME/KEY: unsure LOCATION: (526)
                                                                                                                                                                                                                                                                                  ORGANISM: Homo sapiens FEATURE:
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                                                                               3.9%; Score 33;
100.0%; Pred. No.
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                                                                 Mismatches
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Perfect score:
Sequence:
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US-08-702-525-24
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US-08-130-616-173
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Sequence 601, Appl Sequence 52, Appl Sequence 52, Appl Sequence 46, Appl Sequence 46, Appl Sequence 41, Appl Sequence 188, Appl Sequence 188, Appl Sequence 188, Appl Sequence 188, Appl Sequence 21, Appl Sequence 2598, Appl Sequence 27, Appl Sequence 20, Appl Sequence 21, Appl Sequence 22, Appl Sequence 27, Appl Sequence 27, Appl Sequence 27, Appl Sequence 27, Appl Sequence 28, Appl Sequence 27, Appl Sequence 57, Appl Sequence 117, Appl Sequenc
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APPLICATION NUMBER: US/09/039
PILING DATE: 16-MAR-1998
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Olson, Arne M.
REGISTRATION NUMBER: 30,203
REFERENCE/DOCKET NUMBER: TSRI
TELECOMMUNICATION INFORMATION:
TELEPAN: (312) 580-1180
TELEFAX: (312) 580-1189
INFORMATION FOR SEQ ID NO: 34:
                                                                                                                                                               Sequence 34, Appli
Patent No. 6251627
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Patent No. 6
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                                                                                                                                              GENERAL INFORMATION:
APPLICANT: Jackson, Michael
APPLICANT: Peterson, Per A
TITLE OF INVENTION: ANTIGEN PRESENTING SYSTEM AND METHODS
TITLE OF INVENTION: ACTIVATION OF T-CELLS
NUMBER OF SEQUENCES: 45
                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE
HYPOTHETICAL: N
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LENGTH: 751 base pairs
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MEDIUM TYPE: Floppy disk
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OPERATING SYSTEM:
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20 No. 6225042th Wacker Drive, Suite 3000
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Jackson, Michael
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SYSTEM: PC-DOS/MS-DOS
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Best Local S
Matches 33
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                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: APPLICANT:
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OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0,
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/039,64
                                                         COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
CURRENT APPLICATION DATA:
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HYPOTHETICAL:
ANTI-SENSE: NO
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NAME: Olson, Arne M.
REGISTRATION NUMBER: 30,203
REFERENCE/DOCKET NUMBER: TS
                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                    TITLE OF INVENTION: ANTIGEN PRESENTING SYSTEM AND METHODS TITLE OF INVENTION: FOR ACTIVATION OF T-CELLS
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ATTORNEY/AGENT INFORMATION:
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STATE: Illinois
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mes 33; Conserv
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               CLASSIFICATION:
                               FILING DATE:
                                               APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                     Brunmark,
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BG019264 RGT12664
BG193509 RST12643
BG001664 RCO-NN101
AM901624 RCO-NN101
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448 bp mRNA linear EST 18-SEP-1996
EST224R Pig Spleen lambda gt 11 Library (Clontech Cat # PL1006b)
Sus scrofa cDNA clone SPL224 reverse similar to L25259 CTLA4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Unpublished (1996)
Contact: Tuggle CK
                                                                                                                                                                                                                                                                                                                                 Expressed Sequence Tags from Pig Spleen
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Tuggle, C.K., Wahls, S. and Schmitz, C.
                                                                                                                                                                                                                                                                                                                                                                                                                       AA056906.1 GI:1549546
                                                                                                                                                                                            Seq primer: GACCGGCGCTCAGCT
                                                                                                                                                                                                                 FORWARD: TGGCGACGACTCCTG
BACKWARD: GACCGGCGCTCAGCT
                                                                                                                                                                                                                                                           Iowa State University
201 Kildee Hall, Ames,
Tel: 5152944252
Fax: 5152942401
                                                                                                                                                                                                                                                                                                    Molecular Genetics Laboratory, Department of Animal
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                                                                                                                                                                                                                                                                                                                                                                                       Sus scrofa
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                    h 5.2%; S
Similarity 100.0%;
44; Conservative 0;
                                                                                                                                                                                                      Insert Length: 950
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                                                                                                                                                                                                                                               Email: cktuggle@iastate.edu
                                                                                                                                                                                                                                                                                                                                                                  Mammalia;
                                                                          126
                                                                        /tissue_type="spleen"
/dev_stage="adult"
/note="oligo (dT) primed"
116 c 89 g 116
                                                                                                                                        /organism="Sus scrofa"
/db_xref="taxon:9823"
/clone="SPL224"
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BF222484 7p53a02.x
AI264250 qk20a08.x
AI421543 tf26c08.x
AI421543 tf26c08.x
AI504063 tf60h02.x
AIF50143 at27h10.x
AIF5012 wq31f01.x
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                                                                                        BQ109553.1 (BQ109553.1 (EST.
                                                                  human.
                                                                                                                                                   709 bp mRNA linear EST 16-APR-2001 imagegc_7_2001/snm58bdrr81.yl NIH_MGC_118 Homo sapiens cDNA clone rnnose:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DNA sequencing by: Incyte Genomics, Inc.
Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
Plate: LLAM11432 row: 1 column: 14
High quality sequence start: 27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Email: cgapbs-r@mail.nih.gov
Tissue Procurement: Life Technologies,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 655)

NIH-MGC http://mgc.nci.nih.gov/.

National Institutes of Health, Mammalian Gene Collection (MGC)
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
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ilarity 100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="Homo sapiens"
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sapiens cDNA clone IMAGE:5173789 5',
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is the number of results predicted by chance to have a
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Choi, I.-S., Hash, S., Winslow, B.J. and Collisson,
Direct Submission
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Choi.I.S., Hash, S.M., Winslow, B.J. and Collisson, E.W. Sequence analyses of feline B7 costimulatory molecules Vet. Immunol. Immunopathol. 73 (3-4), 219-231 (2000)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (10-JUN-1999) Veterinary Pathobiology, Texas A&M University, Bldg. 1197 Rm. 222, College Station, TX 77843, USA
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                        Nishimura,Y., Shimojima,M., Miyazawa,T., Izumiya,Y., Ikeda,Y., Mikami,T. and Takal Molecular cloning of the cDNAs encoding to activation antigen B7-1 (CD80) and B7-2 interact with human CTLA4-Ig Eur. J. Immunogenet. 27 (5-6), 427-430 (2006)
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Submitted (31-UIL-1999) Yorihiro Nishimura, Faculty of Agriculture,
The University of Tokyo, Department of Veterinary Microbiology;
1-1-1 Yayoi, Bunkyo-ku, Tokyo 113-8657, Japan
1-1-1 Yayoi, Bunkyo-ku, Tokyo 113-8617, Japan
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SIQGYBEDKEMKFQLNTENSTTKYDTVMKKSQNNVTELYNVSISLPFSVPEAHHVSVF
CALKLETLEMLLSLPFNIDAQPKDKDPEQGHFLWIAAVLVMFVVFCGMVSFKTLRKRK
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1245. 1250
/gence"CD86"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /product="B-lymphocyte activation
/protein_id="BAB11688.1"
/db_xref="GI:9796388"
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/db_xref="taxon:9685"
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Pred. No. 0;
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TITLE
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Canis familiaris truncated
AF106827
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Yang,S. and Sim,G.K.
New forms of dog CD80 and CD86 transcripts that enco
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                                                                                                                                                                                                                                                                                                                              Sharp Point Drive, Fort
                                                                                                                                                                                                                                                                                                                                          Submitted (16-NOV-1998)
                                                                                                                                                                                                                                                                                                                                                           Yang, S. and Sim, G.-K
Direct Submission
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             /translation="wylrcimelnnilfvmilllygaasmksgaxfnktgelpchftn
SQNISLDELVYEWQDGDKLVLELYRGEBURDQNVHRKYKGRTSSDKDNWILRLHNIĞI
KDKGLYQCFWHHKGPKGLYPMHGMNSDLSVLANFSQDEIMVISNRTENSGIINIITGS
IQGYPEPKEMYFLVKTENSSTKYDIVMKKSQNNVTELYNVSISLSFSVPEASNVSIFC
                                                                                                                         /gene="CD86"
/function="counter-receptor for CD28 and CD152 (CTLA4)"
/^^-~"lacks transmembrane domain; alternatively splice
                                                                        /codon_start=1
/product="truncated B7-2
/protein_id="AAF17298.1"
/db_xref="GI:6572519"
VLQLESMKLPSLPYNIETNKVERKESEQTKERVRYHETERSDEAQCVNISKTASGDNS
                                                                                                                                                                                         /gene="CD86"
                                                                                                                                                                                                                       /gene="CD86"
                                                                                                                                                                                                                                       /cell_type="peripheral
1. .1795
                                                                                                                                                                                                                                                                  /organism="Canis familiaris"
/db_xref="taxon:9615"
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Collins, CO 80525, USA
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(CD86) mRNA,
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RESULT 5
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Best Local
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Query Match 6.1%;
Best Local Similarity 100.0%;
Matches 61; Conservative
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AF106826
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Yang, S. and Sim, G.-K.
Direct Submission
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Yang,S. and Sim,G.K.
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/gene="CD86"
a 366 c
                                                                            996. .1897
/gene="CD86"
a 400 c
                                                                                                                                      /product="B7-2 protein"
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KONISLDELVVFWQDODKLVLYELYRGKENPONVHRKYKGRTSUNGLINLTCSS
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VLQLESMKLPSLPYNLDAHTKRTPDGDHILMIAALLMNIVILCGMYFFLTLRKRKKKO
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                                                                                                                                                                                                                                                                                                                                                                 /gene="CD86"
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                                                                                                                                                                                                                                                                     /codon_start=1
                                                                                                                                                                                                                                                                                 'function="counter-receptor
                                                                                                                                                                                                                                                                                                    /gene="CD86"
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 Score 61; DB;
; Pred. No. 8.7;
0; Mismatches
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. 8.8e-23;
               DB 4; Le 8.7e-23;
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                              Length 1897;
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Canis.
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ANCACTAAGGAAAAGGAAGAAGAAGCAGCCTGGCCCCTCT 828
                         AACACTAAGGAAAAGGAAGAAGCAGCCTGGCCCCCTCT 849
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97047772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae;
1 (bases 1 to 994)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sus scrofa.
Sus scrofa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sus scrofa CD86 mRNA,
L76099
                                                     40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GSDB:S:74002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bothwell, A.L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Maher, S.E., Karmann, K., Min, W., Hughes, C.C.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           L76099.1 GI:2198558
T cell costimulation.
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                                                                   Similarity
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                                                                                                                         302
                                                     Conservative
                                                                                                                         Ø
                                                                                                                                                                 /note="putative" 994
                                                                                                                                                                                                                                             /protein_id="AAB61307:1"
//db_xref="GI:2198559"
//translation="MGLSNILFVMVLLLSGAASLKSQAYFNETGELPCHFTNSQNLSL
/translation="MGLSNILFVMVLLLSGAASLKSQAYFNETGELPCHFTNSQNLSL
DELVITFWODDDNLVLXELYRGQEKPHNVNSKYMGRTSFDQAFWTLRLHNVQIKDKGSY
QCFIHHKGPHGLVPIHQMSSDLSLLANFSQPEINLLTNHTENSVINLTCSSTQGYPEP
QCRMYMLLNTKNSTTEHDADMKKSQNNITELXINVSIRVSLPIPPETNVSIVCVLQLEPS
                                                                                                                       /evidence=experimental
241 c 202 g
                                                                                                                                                                                                                                                                                                                                                                                                                                          cell_type="endothelial"
/clone_lib="3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /cell_line="PEC-A"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /organism="Sus scrofa"
/db_xref="taxon:9823"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Location/Qualifiers
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100.0%;
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                                                       Indels
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Sus.
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RESULT 7 AX027016

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RESULT 8
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Sequence 13
AX027016
AX027016.1
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B7-2; CD86 a
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Immunosuppression
Patent: WO 0037102-A 13 29-JUN-2000;
ROGERS NICHOLA JANE (GB) ; DORLING A
LECHLER ROBERT IAN (GB)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sus scrofa
                                                                                                                                                                                                                                                                   Submitted (12-OCT-2000) Brooke For Animal Health, Compton, Ber Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                        COW.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Eukaryota;
Mammalia; |
                                                                                                                                                                                                                                                                                                                     Brooke, G.P
                                                                                                                                                                                                                                                                                                                                                Unpublished
                                                                                                                                                                                                                                                                                                                                                            Cloning and distribution
                                                                                                                                                                                                                                                                                                                                                                          Brooke, G.P., Howard, C.J.
                                                                                                                                                                                                                                                                                                                                                                                                                            Eukaryota;
                                                                                                                                                                                                                                                                                                                                                                                                                                            Bos taurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AJ291475
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                                                                                                                                                                                                                                                                                                           Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                     Bovidae; Bovinae;
                                                                                                                                                                                                                                                                                                                                                                                                                 Mammalia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         h 4.0%;
Similarity 100.0%;
40; Conservative (
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/db_xref="taxon:9823"
241 c 202 g
                                                                                                                                                                                                                                                                                                                                                                                                                ; Metazoa;
Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Location/Qualifiers
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1 to 994)
LPCHEPNTQNLSLDELVIFWQDQNKLVLYELFKGQEKPNNVNPKYIGRTSFDQDSWTL
RLHNVQIKDTGSYQCFIHHRRSQGLVSIHQMSSDLIVLANFSQPEIRLIANQTEKSNI
INLTCSSIQGYPEPQRMYVSLNTTNSSSTYDAVMKKSQSNITELYNVSISVSFPIPPE
                                    /codon_start=1
/product="CD86 antigen"
/protein_id="CA013140.1"
/protein_id="CA013140.1"
/db_xref="GI:10803380"
/translation="MRFKCTMGLRNILMGMALRLSVSKVPFSGAASLKSHAFFNETGE
/translation="MRFKCTMGLRNILMGMALRLSVSKVPFSGAASLKSHAFFNETGE
                                                                                                                                                                                   /cell_type="monocyte"
/tissue_type="peripheral blood"
/dev_stage="adult"
                                                                                                                                                             /country="United 72. .924
                                                                                                                                                                                                                            /organism="Bos taurus"
/db_xref="taxon:9913"
                                                                                                        /function="Immune response"
                                                                                                                     /gene="CD86"
                                                                                                                                              /gene="CD86"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Metazoa;
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                                                                                                                                                                                                                                                                                                                                                                                                                 Chordata; Craniata; Vertebrata; Euteleostomi; Cetartiodactyla; Ruminantia; Pecora; Bovoidea
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Pred. No.
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for CD86
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320 7NN, UNITED KINGDOM
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Sus.
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AX002781
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AX149548
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39; Conser
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1 (bases 1 to 738)
                                             artificial sequences.

1 (bases 1 to 738)

Kingsman, A.O., Kingsman, S.
Ellard, F.M. and Myers, K.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Bebbington,C.R.
           patent: WO 0136486-A 9 25-MAY-2001;
Oxford Biomedica (UK) Limited (GB)
                                   Antibodies
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SELVVEWQDDENLVLMEVYLCKEKFDSYHSKYMGRTSFDSDSTLTLHHLQIKOKGLY
CITHHKKPTGMIRIHQMNSELSVLANFSQPEIVPISNITENVYINLTCSSIHGYPEP
KKMSVLLRTKNSTIELDGIMQKSQDNVTELYDVSISLSVSFPDVTSNMTIFCILETDK
TRLLSSFSIELEDPQPPPDHIPGGGGS"

168 c 148 g 207 t
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/protein_id="CAC04193.1"
/db_xref="GI:9885110"
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1. .>738
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Reverse primer for OncoM gene signal Onco M gene signal Human B lymphocyte Human B7-2 variabl

EST clone CR506.

Human secreted pro Rat CD86 coding se Feline B7-2 gene s Feline CD86 cDNA 5 Cat CD86 ligand cD Feline CD86 pcR pr Feline CD86 degene Feline B7-2 gene (Feline B7-2 protei Feline B7-2 protei Canine B1-2 prophocyte Human B1-2 prophocyte Human B7-2 protei Canine B1-2 protei Canine Canine

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                                                                                                                                                       The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor
  Sequance
                                                  development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection, diagnosis and drug screening.
                                                                                                                                                                                                                                                                                                                          Claim 1; Page 123-124; 148pp; English.
                                                                                                                                                                                                                                                                                                                                                                             New isolated B7 and CTLA4 nucleic acids, used treating, e.g. autoimmune and atopic diseases  \label{eq:condition} % \begin{subarray}{ll} \textbf{New isolated B7 and CTLA4 nucleic acids, used treating, e.g. autoimmune and atopic diseases <math display="block"> \begin{subarray}{ll} \textbf{New isolated B7 and CTLA4 nucleic acids, used treating, e.g. autoimmune and atopic diseases \\ \begin{subarray}{ll} \textbf{New isolated B7 and CTLA4 nucleic acids, used treating, e.g. autoimmune and atopic diseases \\ \begin{subarray}{ll} \textbf{New isolated B7 and CTLA4 nucleic acids, used \\ \begin{subarray}{ll} \textbf{New isolated B7 and CTLA4 nucleic acids, used \\ \begin{subarray}{ll} \textbf{New isolated B7 and CTLA4 nucleic acids, used \\ \begin{subarray}{ll} \textbf{New isolated B7 and CTLA4 nucleic acids, used \\ \begin{subarray}{ll} \textbf{New isolated B7 and CTLA4 nucleic acids, used \\ \begin{subarray}{ll} \textbf{New isolated B7 and CTLA4 nucleic acids, used \\ \begin{subarray}{ll} \textbf{New isolated B7 and CTLA4 nucleic acids, used \\ \begin{subarray}{ll} \textbf{New isolated B7 and CTLA4 nucleic acids, used \\ \begin{subarray}{ll} \textbf{New isolated B7 and CTLA4 nucleic acids, used \\ \begin{subarray}{ll} \textbf{New isolated B7 and CTLA4 nucleic acids, used \\ \begin{subarray}{ll} \textbf{New isolated B7 and CTLA4 nucleic acids, used \\ \begin{subarray}{ll} \textbf{New isolated B7 and CTLA4 nucleic acids, used \\ \begin{subarray}{ll} \textbf{New isolated B7 and CTLA4 nucleic acids, used \\ \begin{subarray}{ll} \textbf{New isolated B7 and CTLA4 nucleic acids, used \\ \begin{subarray}{ll} \textbf{New isolated B7 and CTLA4 nucleic acids, used \\ \begin{subarray}{ll} \textbf{New isolated B7 and CTLA4 nucleic acids, used \\ \begin{subarray}{ll} \textbf{New isolated B7 and CTLA4 nucleic acids, used \\ \begin{subarray}{ll} \textbf{New isolated B7 and CTLA4 nucleic acids, used \\ \begin{subarray}{ll} \textbf{New isolated B7 and CTLA4 nucleic acids, used \\ \begin{subarray}{ll} \textbf{New isolated B7 and CTLA4 nucleic acids, used \\ \begin{subarray}{ll} \textbf{New isolated B7 and CTLA4 nucleic acids, used \\ \begin{subarray}{ll} \textbf{New isolated B7 and CTLA4 nucleic acids, used \\ \begin{subarray
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17-APR-1998;
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98US-0062597
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319 A; 219 C; 203 G; 255 T; 0 other;
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Query Match

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Score 996;

DB 20;

Length 996;

RESULT

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960	AAAGAGTACCATACCACGTACCTGAGGAGCTGATGAAGCCCAGTGTATTAACATTTT		
960	GAAAGAGTACCATACCACGTACCTGAGAGATCTGATGAAGCCCAGTGTATTAACATTTTG	Оу 901	
900	CCATCAAAAC	Qy 841 Db 841	
-4-	TTGTTTTTTGTGGGATGGTGTCCTTTAAAACACTAAGGAAAAGGAAGAAGAAGAAGCAG	. 7	
	TTGTTTTTTGTGGGATGGTGTCCTTTAAAACACTAAGGAAAAGGAAGAAGAAGCAGCC	Qy 781	
780		7	
00	GATAAAGACCCTGAACAAGGCCACTTCCTCTGGATTGCGGCTGTACTTGTAATGTT	7	
720	CTGAAACTGGAGACACTGGAGATGCTGCTCTCCCTACCTTTCAATATAGATGCACAACCT	Qy 661 Db 661	
6	STATCAGCTTGCCTTTTCAGTCCCTGAAGCACACAATGTGAGCGTCTTTTGTGC	<b>о</b>	
660	GTCCCTGAAGCACACAATGTGAGCGTCTTT	Оу 601	
600	AAATCTCAAA	Db 541	
	CTACTAAGTATGATACTGTCATGAAGAAATCTCAAAATAATGTGACAGAACTGTACAA		
	CTAAACACTGAGAATTC		
540	CTATACAAGGTTACCCAGAACCTAAGGAGATGTATTTTCAGCTAAACACTGAGAATT	Qy 481	
	8=	-	
480	AAATAACAGTAACTTCTAATAGAACAGAAAATTCTGGCATCATAAATTTGACCTGCTC	Qy 421	
2	GCTAACT	•	
Ν	TAGTTCCCATGCACCAAATGAGTTCTGACCTATCAGTGCTTGCT	Оу 361	
360		ω	
ō.	TTCAGATCAAGGACAAGGGCACATATCACTGTTTCATTATAAAGGGCCCCAAAGG		
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300	; TCAAATATAAGGGCCGTACAAGCTTTGACAAGGACAACTGGACCCTGAGACTCCACAA	Qy 241	
240	CTG	Db 181	
	AGGATAAGCTGGTTCTGTATGAGATATTCAGAGGCAAAGAGAACCCTCAAAATGTTCA	Qy 181	
180	TGCCATTTTACAAACTCTCAAAACATAAGCCTGGATGAGCTGGTAGTATTTTGGCAGGAC	Qy 121 Db 121	
120	TCTCTGGTGTTTCTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAACTGCC	Db 61	
	CTCTCTGGTGTTTCTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAAGACTGCCA	Qy 61	
60	TGGGCATTTGTGACAGCACTATGGGACTGAGTCACACTCTC	Db 1	
60	GGGCATTTGTGACAGCACTATGGGACTGAGTCACACTCTCCTTTGTGATGGCCCTCCT	0у 1	
aps	996; Conservative 0; Mismatches 0; Indels 0; G	Matches	

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AAZ27932 standard;
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17-APR-1998;
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CTCAAATATAAGGGCCGTACAAGCTTTGACAAGGACAACTGGACCCTGAGACTCCACAAT
                                                 CTCAAATATAAGGGCCGTACAAGCTTTGACAAGGACAACTGGACCCTGAGACTCCACAAT
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AC AAZ2
XX 20-L
XX B7;
KW B7;
KW B116
KW G116
KW G16
KW G16
XX W091
XX W092
XX 19-1
PR 19-1
PR 11-1
XX 19-1
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Best Local :
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)B; AAY41079.
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                                           GTTTCTATCAGCTTGCCTTTTTCAGTCCCTGAAGCACAATGTGAGCGTCTTTTGTGCC
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RESULT 4
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AC BP: CTLA4;
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                                                                                                                                                                 The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecule and the encoded proteins can be used for preventing or treating diseases and the encoded proteins can be used for preventing or treating diseases, allergic reactions, infectious diseases, tumos e.g. autoimmune diseases, allergic reactions, infectious diseases, tumos
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; feline; graft rejection; inflammation; arthritis; atopic dermatitis; ss.
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                                                      development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, catts, cattle, sheep or pets. The products can also be used for detection, diagnosis and drug screening.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Felis catus.
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17-APR-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                New isolated B7 and CTLA4 nucleic acids, used treating, e.g. autoimmune and atopic diseases
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                                                                                                                                                                                                                         nucleic acid, inserted into a nonessential genomic region, that encodes feline CD28, CD80, CD86 or CTLA-4 protein, or their immunogenic fragments, and is expressed when the recombinant virus is introduced into a suitable host. The invention also provides: a recombinant virus further comprising a foreign nucleic acid encoding an immunogen derived from a feline pathogen; recombinant viruses capable of enhancing an immune response to protect against disease; recombinant viruses expressing antisense sequences, capable of suppressing an immune response in a feline, e.g. for treatment of autoimmune disease or transplant rejection; and recombinant viruses expressing DNA encoding CD80 and/or CD86 used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 200
P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                            or CTLA-4 (and/or their co-stimulatory ligands CD80 and CD86) regulates T cell proliferation and cytokine release. The inventional relates to a recombinant virus that contains at least one foreign
                                                                                                                                                                                                                                                                                                                                                                                                                    (B7-2). The cDNA was isolated from feline \mu mononuclear cell cDNA by PCR. Manipulating
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Fig 3A; 230pp; English
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                                                                                                                                 Local Similarity
mes 948; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                is the nucleotide sequence of cDNA coding for feline CI

The cDNA was isolated from feline peripheral blood
                                       CTCTCTGGTGTTTCTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAAACTGCCA 120
                                                                                           ATGGGCATTTGTGACAGCACTATGGGACTGAGTCACACTCTCCTTGTGATGGCCCTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2000-062155/05
)B; AAY32285.
TGCCATTTTACAAACTCTCAAAACATAAGCCTGGATGAGCTGGTAGTATTTTGGCAGGAC
                          CTCTCTGGTGTTTCTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAACTGCCA
                                                                               ATGGGCATTTGTGACAGCACTATGGGACTGAGTCACACTCTCCTTGTGATGGCCCTCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    recombinant virus useful as immunomodulators, particularly in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B7-2;
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SCHERING-PLOUGH VETERINARY CORP
                                                                                                                                                                                         1080
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                                                                                                                                 95.2%;
ilarity 100.0%;
Conservative
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                                  autoimmune disease; transplant
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ATGGGCATTTGTGACAGCACTATGGGACTGAGTCACACTCTCCTTGTGATGGCCCTCCTG 122

CTCTCTGGTGTTTCTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAQAACTGCCA 120

TGCCATTTTACAAACTCTCAAAACATAAGCCTGGATGAGCTGGTAGTATTTTGGCAGGAC 180 CTCTCTGGTGTTTCTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAACTGCCA 182 Matches

948;

B Qy Вb

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CC (B7-2) ligand (see AAY32278). It was obtained following RT-PCR of CC peripheral blood mononuclear cell mRNA and RACE-PCR. A vector CC comprising nucleic acid encoding feline CD86 ligand or feline CD80 ligand is designated PSI-2#19-2/011298 (ATCC 209821). CC The coexpression of CD86 with the costimulatory molecules CD28 (see CC AAY32279) and a tumour antigen or an antigen from a pathogenic CC T-lymphocytes. Coexpression of CD86 with CTLA-4 (see AAY32280) has CC Trymphocytes. Coexpression of CD86 with CTLA-4 (see AAY32280) has CC Trymphocytes. Coexpression of CD86 with CTLA-4 (see AAY32280) has CC Trymphocytes. Coexpression of T-lymphocytes. The invention CC feline CD80 (B7-1) ligand, feline CD28 receptor or feline CD80 isolated nucleic acids encoding feline CD86 ligand, CC feline CD80 (B7-1) ligand, feline CD28 receptor or feline cTLA-4 (CD152) receptor, as well as vectors comprising the nucleic acids. It also provides CC vaccines comprising the CD80, CD86, CD28 or CTLA-4 polypeptides and CC further comprising immunogens derived from pathogens, especially CC feline immunodeficiency virus (FIV), feline leukaemia virus, feline CC feline calicivirus, feline rotovirus, feline rotovirus, feline CC feline calicivirus, feline servovirus, feline rotovirus, feline CC herpesvirus, feline Borna disease virus, rabies virus, chlamydia, CC pathogen, or parasite (all claimed). Vaccines capable of enhancing an immune response, and vaccines capable of suppressing CC or tissue or organ transplant rejection) are claimed. The correctors.
                 Query Match
Best Local :
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                                                                Sequence 1080 BP; 333
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                                                    CD28; CD80; CTLA-4; CD86; immunogen; vaccine; viral infection; ne immunodeficiency disease; feline infectious peritonitis; ne leukaemia virus; cancer; degenerative disease; autoimmune di
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Best Local Similarity
Matches 948; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present invention relates to a recombinant virus comprising at least one foreign nucleic acid encoding a protein selected from feline cytotoxic T lymphocyte accessory molecules CD28, CD80, CD80 or CTLA-4, which is capable of expression when the virus is introduced into an appropriate host. The virus can be administered to the feline in order to elicit or enhance an immune response to prevent or treat feline immunodeficiency disease, feline leukemia, feline infectious peritonitis, cancers, degenerative and autoimmune diseases and immunodeficiency. The present sequence is the coding sequence of a cytotoxic T lymphocyte accessory molecule described in the exemplification of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CD86
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New recombinant virus, useful for immunizing felines to prevent or treat feline immunodeficiency virus, comprises foreign nucleic acidencoding feline cytotoxic T lymphocyte accessory molecules CD28, Clobe or CTLA-4 -
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DB; AAO17734.
TCTATACAAGGTTACCCAGAACCTAAGGAGATGTATTTTCAGCTAAACACTGAGAATTCA
                                              GAAATAACAGTAACTTCTAATAGAACAGAAAATTCTGGCATCATAAATTTGACCTGCTCA
                                                                               TGCCATTTTACAAACTCTCAAAACATAAGCCTGGATGAGCTGGTAGTATTTTTGGCAGGAC
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                                   GAAATAACAGTAACTTCTAATAGAACAGAAAATTCTGGCATCATAAATTTGACCTGCTCA
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ACTACTAAGTATGATACTGTCATGAAGAAATTCTCAAAAATAATGTGACAGAACTGTACAAC

ACTACTAAGTATGATACTGTCATGAAGAAATCTCAAAATAATGTGACAGAACTGTACAAC

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RESULT 8
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                                                             P-PSDB;
                                                                                                                                                                                                      (COLL/)
(HASH/)
(CHOI/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cat; vaccine; feline immunodeficiency virus; FIV; immunosuppressant; feline infectious peritonitis; gene; ss; CB00 ligand; CD86 ligand; CD28; receptor; CTA-4; vaccine; rabies; autoimmune disease; organ transplant; toxoplasmosis gondil; flea; parasite; panleukopaen feline leukaemia; FeLV; calcivirus; rotavirus; reovirus type 3;
Polynucleotide encoding polypeptide of receptor or CTLA-4 receptor as vaccine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CDS
                                                                             WPI; 2002-315045/35
P-ESDB; AAU78121.
                                                                                                                                                          Collisson EW,
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) HASH S M.
) CHOI I.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Location/Qualifiers 63..1052
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/product= "CD86 protein"
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  CD80 ligand, for inducing
                         CD86 ligand,
     immune
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type 3;
     response
                         CD28
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Convention also relates to a vaccine comprising an effective amount of these receptor proteins. A vaccine is useful for inducing immunity or cenhancing an immune response in a cat. The protein sequences of the convention are useful for suppressing an immune response in a feline corgan transplant. A vector containing the DNA sequences of the corgan transplant. A vector containing the DNA sequences of the corgan transplant. A vector containing the DNA sequences of the corgan transplant. A vector containing the DNA sequences of the corgan transplant. A vector containing the DNA sequences of the corgan transplant. A vector containing the DNA sequences of the corgan transplant. A vector containing the DNA sequences of the corgan transplant. A vector containing the DNA sequences in a feline to an climmunogen such as rables virus, chlamydia, toxoplasmosis gondii, confections peritonitis virus (FIP), panleukopaenia virus, calcivirus, corfections peritonitis virus (FIP), panleukopaenia virus, herpes virus, careovirus, borna disease virus or a parasite. The protein sequences corgany be further utilised to promote growth in homologous or heterologous corgany be further utilised to promote growth in homologous or heterologous corgany be further utilised to promote growth in homologous or heterologous corgany be further utilised to promote growth in homologous or heterologous corgany be further through the interaction of feline CD80 or CD86 with CD80 or SQLUble CD80 or SQLUb
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           lates to the DNA and protein sequences encoding a nd, soluble CD86 ligand, soluble and membrane-bound soluble or membrane bound CTLA-4 receptor. The
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Sequence 1080 BP; 333 A; 233 C; 235 G; 279 T; 0 other;

95.2%; 100.0%;

DB

Length 1080;

0

Query Match

Local

Matches 541 543 481 483 421 423 361 363 303 123 301 241 243 181 183 121 61 63 CTCTCTGGTGTTTCTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAACTGCCA 120 ATGGGCATTTGTGACAGCACTATGGGACTGAGTCACACTCTCCCTTGTGATGGCCCCTCCTG 60 TCTATACAAGGTTACCCAGAACCTAAGGAGATGTATTTTCAGCTAAACACTGAGAATTCA 540 GAAATAACAGTAACTTCTAATAGAACAGAAAATTCTGGCATCATAAATTTGACCTGCTCA 480 CTAGTTCCCATGCACCAAATGAGTTCTGACCTATCAGTGCTTAGCTTCAGTCAACCT 420 CTCAAATATAAGGGCCGTACAAGCTTTGACAAGGACAACTGGACCCTGAGACTCCACAAT 300 CAGGATAAGCTGGTTCTGTATGAGATATTCAGAGGCAAAGAGAACCCTCAAAATGTTCAT ACTACTAAGTATGATACTGTCATGAAGAAATCTCAAAATAATGTGACAGAACTGTACAAC TCTATACAAGGTTACCCAGAACCTAAGGAGATGTATTTTCAGCTAAACACTGAGAATTCA GAAATAACAGTAACTTCTAATAGAACAGAAAATTCTGGCATCATAAATTTGACCTGCTCA CTCAAATATAAGGGCCGTACAAGCTTTGACAAGGACAACTGGACCCTGAGACTCCACAAT CAGGATAAGCTGGTTCTGTATGAGATATTCAGAGGCAAAGAGAACCCTCAAAATGTTCAT TGCCATTTTACAAACTCTCAAAACATAAGCCTGGATGAGCTGGTAGTATTTTGGCAGGAC TGCCATTTTACAAACTCTCAAAACATAAGCCTGGATGAGCTTGGTAGTATTTTGGCAGGAC 180 ATGGGCATTTGTGACAGCACTATGGGACTGAGTCACACTCTCCTTGTGATGGCCCTCCTG al Similarity 948; Conserv Conservative Score 948; DB; Pred. No. 0; 0; Mismatches 0; 0; Indels 0; Gaps 482 422 542 242 362 302 122

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RESULT 9
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ID ZAAZ2
AC AAZ2
AC AAZ2
AC AAZ2
XX B7;
KW B7;
KW B11;
KW B1;
KW B16;
KW G116;
XX W099
XX W099
XX H09;
XX H19-N
PR 19-N
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The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection, diagnosis and drug screening.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; feline; graft rejection; inflammation; arthritis; atopic dermatitis; ss.
                                                                                                                                                                                  New isolated B7 and CTLA4 nucleic acids, used treating, e.g. autoimmune and atopic diseases % \left( 1\right) =1
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P-PSDB; AAY41080.
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17-APR-1998;
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98US-0062597
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        Sim
                                             19-MAR-1998;
17-APR-1998;
                                                                                                                                                          graft
                                                                                                                                                                    allergic reaction;
                           (HESK-) HESKA
                                                                            19-MAR-1999;
                                                                                                23-SEP-1999
                                                                                                                  W09947558-A2
                                                                                                                                     Felis catus.
                                                                                                                                                                                              Feline B7-2 gene (larger fragment) complementary DNA sequence
                                                                                                                                                                                                                     20-DEC-1999
                                                                                                                                                                                                                                        AAZ27934;
                                                                                                                                                                                                                                                          AAZ27934
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                                                                                                                                                               CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; ergic reaction; infectious disease; tumor development; feline;
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                                                                                                                                                         rejection;
      Yang
                                                                                                                                                                                                                                                           standard;
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                                                                                                                                                                                                                    (first entry)
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                          CORP.
                                            98US-0078765
98US-0062597
                                                                           99WO-US06187.
                                                                                                                                                         inflammation; arthritis; atopic
       Sellins
                                                                                                                                                                                                                                                         DNA;
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0; Mismatches
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RESULT 11
AAZ27935
ID AAZ27
XX AAZ27
AC AAZ27
XX 20-DE
DT 20-DE
DT 20-DE
XX Felir
XX B7; 
XX B7; 
XX B1lex
KW allex
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Best Local S
Matches 509
B7; CTLA*, .
allergic reaction; ;
graft rejection; in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The
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                                                                                                          20-DEC-1999
                                                                                                                                      AAZ27935
                                                                                                                                                                      AAZ27935 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      treating, e.g. autoimmune
                                                                          Feline B7-2 protein (smaller fragment) encoding DNA
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                                                                                                                                                                                                                                                                                                           89
                                                                                                                                                                                                                                               29
           CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; ergic reaction; infectious disease; tumor development; feline; ft rejection; inflammation; arthritis; atopic dermatitis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               invention
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                                                                                                                                                                                                                                                           ACAGCCTCAGGCGACAAAAGTACTACACA 992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACTAAGTATGATACTGTCATGAAGAAATCTCAAAATAATGTGACAGAACTGTACAACGTT
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                                                                                                                                                                                                                                                                                                                           AGAGTACCATACCACGTACCTGAGAGATCTGATGAAGCCCAGTGTATTAACATTTTTGAAG 963
                                                                                                                                                                                                                                                                                                                                                                                                  AAACTGGAGACACTGGAGATGCTGCTCCCTACCTTTCAATATAGATGCACAACCTAAG
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                                                                                                          (first
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      and CTLA4 nucleic acids, used to autoimmune and atopic diseases -
                                                                                                                                                                      DNA;
                                                                                                        entry)
                                                                                                                                                                      359
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RESULT 12
AAZ27936/c
ID AAZ279
XX AZ279
XC AAZ279
XZ 20-DEC
XX B7; CT
KW B7; CT
KW B8; CT
KW B1lerg
KW graft
XX
XX Felis
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Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection,
                                   B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune allergic reaction; infectious disease; tumor development; feligraft rejection; inflammation; arthritis; atopic dermatitis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          diagnosis and drug screening.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          treating,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 P-PSDB;
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17-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19-MAR-1999;
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                                                                                                                                         AAZ27936;
                                                                                                                                                                 AAZ27936
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                                                                                       Feline
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                                                                                                                20-DEC-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   catus
                                                                                       B7-2
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                                                                                                                                                                 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Page 127-128; 148pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 359 BP; 128 A; 79 C; 69 G; 83 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          e.g. autoimmune
                                                                                      gene
                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
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                                                                                                               (first entry)
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98US-0062597
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 1; Page 129; 148pp; English.
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                                                                                                                                                                                      B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; canine; graft rejection; inflammation; arthritis; atopic dermatitis; ss.
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17-APR-1998;
                                                                                                                                       Canis familiaris
                                                                                                                                                                                                                                                                                                Canine B7-2S
                                                                                                                                                                                                                                                                                                                                                           20-DEC-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New isolated B7 and CTLA4 nucleic acids, used treating, e.g. autoimmune and atopic diseases
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Pred. No. 2.3e-102;
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RESULT 14
AAZ27924/c
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Best Local
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                                                                                                                                                                                                             Canis familiaris.
                                                                                                                                                                                                                                      allergic reaction; infectious of
graft rejection; inflammation;
                                                                                                                                                                                                                                                                                                                                                                         AAZ27924 standard; DNA; 840
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17-APR-1998;
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           WPI; 1999-571822/48
                                     Sim G,
                                                                                         19-MAR-1998;
17-APR-1998;
                                                                                                                                19-MAR-1999;
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                                                                                                                                                                                                                                                                                          Complementary strand of canine B7-2S coding sequence.
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                                                               (HESK-) HESKA
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                                                                                                                                                                                                                                                    CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease;
ergic reaction; infectious disease; tumor development; canine;
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                                     Yang S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
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98US-0062597
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98US-0062597.
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Pred. No.
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                                                                                                                                                                                                                                         arthritis; atopic dermatitis; ss
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. 5.6e-20;
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RESULT 15
AAZ27915
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AC AAZ27
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Best Local :
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   The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New isolated B7 and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20-DEC-1999
                                                                                                                                                                                                          Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (HESK-) HESKA CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19-MAR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                710 A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             770
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                                                                                                                                                                                                                                                           isolated B7 and CTLA4 ating, e.g. autoimmune
                                                                                                                                                                                                                                                                                                                                                        1999-571822/48
DB; AAY41076.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAACTGCCATGCCATTTTACAA 711
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAACTGCCATGCCATTTTACAA 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             l Similarity
61; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             840 BP;
                                                                                                                                                                                                       Page 102-103; 148pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             e.g.
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ilarity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           protein coding sequence
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98US-0062597
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                                                                                                                                                                                                                                                                                                                                                                                                                                             Sellins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTLA4 nucleic acids, used to develop products for immune and atopic diseases \dot{}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        987
                                                                                                                                                                                                                                                                 nucleic acids, used and atopic diseases
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Pred.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5 B
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                                                                                                                                                                                                                                                                             to develop
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                                                                                                                                                                                                                                                                                               products
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CTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAACTGCCATGCCATTTTACAA 133

Query Match Best Local Matches

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                                              encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection, diagnosis and drug screening.
                                                                                                                                                                                                                                                                                                                                        Claim 1; Page 103-104; 148pp; English.
                                                                                                                                                                                                                                                                                                                                                                                             New isolated B7 and CTLA4 nucleic acids, used to develop products treating, e.g. autoimmune and atopic diseases \dot{}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Canis familiaris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       graft rejection;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Complementary strand of canine B7-2 coding sequence.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAZ27916 standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 19-MAR-1998;
17-APR-1998;
  Sequence
                                                                                                                                                                                                                                                                                    The invention provides B7 and CTLA4 (T cell costimulatory proteins)
                                                                                                                                                                                                                                                                                                                                                                                          treating,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (HESK-) HESKA CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          23-SEP-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A 134
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAACTGCCATGCCATTTTACAA 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAACTGCCATGCCATTTTACAA 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          61;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Yang S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        987
        987
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
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98US-0062597.
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        253
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sellins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          inflammation; arthritis; atopic dermatitis;
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     Α;
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     204 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        KS
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    disease;
        215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
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        315 T; 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       tumor
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5.5e-20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        dog;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; cat; autoimmune disease;
development; canine;
        other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length
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RESULT 17
AAZ27921
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XX B7:
XX B7:
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RESULT 18
AAZ27922/C
ID AAZ27922 standard; DNA; 1795 BP.
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                                                                                                                                                                                                                                                                           В
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor. development, graff rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 1795 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention provides B7 and CTLA4 (T cell costimulatory proteins)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 1; Page 109-111; 148pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New isolated B7 and CTLA4 nucleic acids, used to treating, e.g. autoimmune and atopic diseases \, -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 1999-571822/48.
P-PSDB; AAY41078.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19-MAR-1998;
17-APR-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAZ27921 standard; DNA; 1795 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (HESK-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      857 A 857
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           134 A 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    917
                                                                                                                                                                      137
                                                                                                                                                                                                                     134
                                                                                                                                                                                                                                                                        74 CTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAACTGCCATGCCATTTTACAA 133
                                                                                                                                                                                                                                                                                                                                                                                                                      Local
                                                                                                                                                                                                                     A 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAACTGCCATGCCATTTTACAA 858
                                                                                                                                                                   A 137
                                                                                                                                                                                                                                                                                                                                                                                           61;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Yang S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    HESKA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         drug screening.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98US-0062597
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98US-0078765
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          99WO-US06187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sellins KS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   592 A; 366 C; 347 G;
                                                                                                                                                                                                                                                                                                                                                                                                                6.1%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          encoding DNA
                                                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                                                                                   Score 61;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                   DB 20; 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      490 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 1795;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       develop
                                                                                                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       products
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RESULT 19
AAZ27913
ID AAZ27
XX AAZ27
XX AAZ27
XX 20-DE
DT 20-DE
XX B7; C
KW B7; C
KW aller
XX S2
XX Canis
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Best Local
                                                                                                                                                                                                                                                                                                                                                            Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; canine; graft rejection; inflammation; arthritis; atopic dermatitis; ss.
                                                                                                                                                                                                                                                                                                      1719
                                                                                                                                                                                                                                                  1659
                                                                                                                                                                                                                                                                                                                                                                                                                                                      development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 1; Page 112-114; 148pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Canis familiaris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Canine B7-2S
                                      B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune allergic reaction; infectious disease; tumor development; car graft rejection; inflammation; arthritis; atopic dermatitis;
                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 1795 BP; 490 A; 347 C; 366 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                         diagnosis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          treating, e.g. autoimmune and atopic diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        New isolated B7 and CTLA4 nucleic acids, used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1999-571822/48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19-MAR-1998;
17-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           19-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       23-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WO9947558-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      20-DEC-1999
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              Canis familiaris
                                                                                              Canine B7-2 protein encoding
                                                                                                                        20-DEC-1999
                                                                                                                                                   AAZ27913;
                                                                                                                                                                               AAZ27913 standard; DNA; 1897
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (HESK-) HESKA CORP.
                                                                                                                                                                                                                                                                           134
                                                                                                                                                                                                                                                                                                                                74 CTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAACTGCCATGCCATTTTACAA 133
                                                                                                                                                                                                                                                                                                                                                                          Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             G,
                                                                                                                                                                                                                                                  A 1659
                                                                                                                                                                                                                                                                           A 134
                                                                                                                                                                                                                                                                                                     61;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Yang S,
                                                                                                                                                                                                                                                                                                                                                           6.1%;
ilarity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gene complementary DNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                         drug screening.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  98US-0078765
98US-0062597
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sellins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KS;
                                                                                                                                                                                                                                                                                                                                                            0,:
                                                                                                                                                                                                                                                                                                                                                                        Score 61;
Pred. No.
                                                                                              DNA.
                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                        DB 20; 1
                                                                                                                                                                                                                                                                                                                                                                                                                592 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ٠ 6
                                                                     cat; autoimmune disease;
                                                                                                                                                                                                                                                                                                                                                                                    Length 1795;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        develop products
                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                              0;
                                          SS
                                                                                                                                                                                                                                                                                                                                                           Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             molecules
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RESULT 20
AAZ27914/c
ID AAZ27914 standard; DNA; 1897
Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection, diagnossis and drug screening.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New isolated B7 and CTLA4 nucleic acids, used to develop products treating, e.g. autoimmune and atopic diseases \,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sim G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19-MAR-1998;
17-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      19-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     23-SEP-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1897 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P-PSDB; AAY41076.
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                                                                                                                                                                                                                                                                                                                                                   B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; canine; graft rejection; inflammation; arthritis; atopic dermatitis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Canine B7-2 gene complementary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAZ27914;
                       (HES
                                                                         19-MAR-1998;
17 \PR-1998;
                                                                                                                                                  19-MAR-1999;
                                                                                                                                                                                                    23-SEP-1999
                                                                                                                                                                                                                                                   W09947558-A2
                                                                                                                                                                                                                                                                                                    Canis familiaris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 136 A 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              134 A 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             76
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            74 CTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAACTGCCATGCCATTTTACAA 133
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1999-571822/48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             CTTCCATGAAGAGTCAAGCATATTTCAACAAGACTGGAGAACTGCCATGCCATTTTACAA 135
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                61;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Yang S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 HESKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity 100
61; Conservative
                       HESKA CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Page 97-99;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98US-0078765.
98US-0062597.
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                                                                      98US-0078765
98US-0062597
                                                                                                                                                    99WO-US06187
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   585 A; 400 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        6.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                148pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 61;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                    DNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   383 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   529 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB 20; ; 5.5e-20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0;
       RESULT 21
AAT162939
ID AAT167
AC AAT167
AC AAT167
AC Chime
AC Chime
AC Chime
CC Chime
CC Chime
CC CC Chime
CC CC CC
ACC CC CC
ACC CC
AC
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       Rother RP;
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Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, and the encoded proteins can be used for preventing or treating diseases, tumor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New isolated B7 and CTLA4 nucleic acids, used treating, e.g. autoimmune and atopic diseases % \left( 1\right) =\left\{ 1\right\} =\left\{ 1\right\}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sim
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CD68; monoclonal antibody; chimeric antibody; diagnosis;
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Evans MJ,
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and drug screening.
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WPI; 1997-212855/19
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P-PSDB; AAW14944

Antibodies binding to porcine but not human cell interaction proteins - useful to treat and assay for rejection of xenografted porcine organs, tissues or cells

Disclosure; Page 69-70; 105pp; English.

A DNA construct (AAT62939) codes for a chimeric human/porcine CD86 (B7-2) cell adhesion molecule. RT-PCR was used to amplify an internal segment of the porcine CD86 gene from RNA isolated from lipopolysaccharide-stimulated potcine peripheral blood lymphocytes. A second PCR fragment encoding a truncated N-terminus was prepd. by 5'RACE PCR. The partial gene fragment was fused to the C-terminal 49 amino acids of the human CD86 IgC domain by overlapping PCR; the 3' primer included 15 nucleotides encoding a historian terminal termina overlapping PCR; the 3' primer included 15 nucleotides encoding a histidine tag. Antibodies to porcine CD86 protein are useful for diagnosing human rejection of porcine xenotransplants and for improving xenotransplantation of porcine cells, tissues and organs into human recipients. organs

Sequence 764 BP; 218 A; 197 C; 148 G; 201 T; 0 other;

Query Match Matches Local 49; Similarity ilarity 100.0%; Conservative ( 4.98; 0; Score 49; Pred. No. Mismatches 5e-14; DB 18; 0; Length 764; Indels 0; Gaps

0;

g QУ

B δÃ 382 ATGAGTTCTGACCTATCAGTGCTTAGCTTCAGTCAACCTGAAATAA 430 379 ATGAGTTCTGACCTATCAGTGCTTGCTAACTTCAGTCAACCTGAAATAA 427

AAA49661;

AAA49661 standard;

CDNA; 1050 BP

25-SEP-2000 (first entry)

Pig costimulatory molecule CD86 (B7-2) cDNA

Co-stimulatory molecule; CD86; B7-2; pig; immunosuppressive; xerotransplantation; organ transplant; vaccine; ss.

RESULT 22
AAA49661
ID AAA49
XX AAA49
AC AAAA49
AC AAA49
AC AAA49
AC AAAA49
AC AAAA49
AC AAAA49
AC AAAA Location/Qualifiers 36..1013 /\*tag=

WO200037102-A2

29-JUN-2000.

17-DEC-1999; 99WO-GB04200

19-DEC-1998; 23-OCT-1999; 98GB-0027921. 99GB-0025015.

(MLML-) ML LAB PLC.

Lechler RI, Rogers ĽN Dorling

2000-442537/38 DB; AAY95321.

Novel methods for improving tolerance to a xenograft comprising immunizing a mammal with a T-cell epitope and a B-cell epitope

Fig

The present sequence is that of cDNA clone CD86(i), which encodes CC pig co-stimulatory molecule CD86 (B7-2) (see AAA995321). The clone CC was obtained by PCR amplification of pig cDNA using primers (see CC AAA99662-63) based on a published pig B7-2 sequence. The invention CC cells of human T cells, with particular importance in the context CC of xerotransplantation of porcine organs. Recipients are immunised CC with hybrid synthetic peptides comprising a T cell epitope CC conjugated to sequences of the porcine costimulatory molecules CC CD80, CD86 or CD40. Peptides that induce antibodies specific for CC counter-receptors on human cells (CD28 and CD14) are capable of CC counter-receptors on human cells (CD28 and CD14) are capable of blocking the delivery of costimulation. Once the antibody response CC has been induced, the transplanted organ will recall this response CC due to the expression of the costimulatory molecules. Thereby CC sustaining the response, and providing an endogenous mechanism of CC colerance of a host to xenografts, particularly porcine pancreatic Sequence 1050 BP; 305 A; 260 C; 227 G; 258 T; 0 other;

X202020202020202020XX

Query Match Best Local S Matches 49 Local Similarity les 49; Conser 4.9%; Score 49; DB ilarity 100.0%; Pred. No. 5e Conservative 0; Mismatches DB 21; Length 1050; 5e-14; 0; 0;

0;

AAV80293
IID AAV8
XX
AC AAV8
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Tumm
CKW 574
KW mous
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Tum
CS Chin
CS CR
CS Chin
CS CR
CS C RESULT 23 AAV80293 standard; CDNA; 738

15-MAR-1999 (first entry)

Human B7-2 extracellular domain and linker DNA

Tumour interacting protein; cancer; gene therapy; 5T4 antigen; monoclonal antibody; single chain and mouse; human; B7-2; co-stimulatory molecule; ss. antibody;

Chimeric - Homo sapie Chimeric - synthetic. Homo sapiens.

W09855607-A2

10-DEC-1998

04-JUN-1998; 98WO-GB01627

04-JUL-1997; 04-JUN-1997; 20-JUN-1997; 97GB-0014230. 97GB-0011579. 97GB-0013150.

(OXFO-) OXFORD BIOMEDICA UK LTD.

Bebbington CR, Myers Carroll WW, Ellard

FM,

Kingsman

WPI; 1999-059910/05

P-PSDB; AAW86005

 contains recognises cancer New vector encoding a tumour interacting protein for treating cancer a desired nucleotide sequence and/or protein which tumours, and is used as a gene delivery system to treat

Example 5; Fig 4; 82pp; English

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RRESULT 2.
AAP89731
AAP89731
AAP89731
AAC AAF
AAC AAF
XX 23--
XX Sin
KW Sin
KW Hei
AX Car
KW Hei
AX 
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                                  Myers
                                                                     Kingsman A,
                                                                                                                                                                                                       02-MAR-2000;
                                                                                                                                                                                                                                      18-NOV-1999;
15-FEB-2000;
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2000GB-0005071.
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vity; autoimmune disease; central nervous system disorder;
disease; periodontal disease; cardiopulmonary disease;
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CC which is capable of recognizing a disease associated molecule in the CR manufacture of a medicament for the prevention and treatment of a cC disease condition. The ScFv antibody is useful in the manufacture of a medicament, for affecting a disease in vivo, for preparing a cC pharmaceutical composition, for in vivo imaging and/or for adjuvant cC treatment of a disease. The ScFv antibody is also useful for treatment of inflammatory diseases including arthritis, hypersensitivity, cC treating inflammatory diseases, including arthritis, hypersensitivity, cC autoimmune diseases, cancers, central nervous system disorders cC including Parkinson's diseases, periodontal diseases, cardiopulmonary cf diseases, cardiovascular diseases, gastrointestinal disorders. The present sequence encodes a B7-2.574.1 fusion protein. This comprises the N-terminus of the ST4 ScFv is fused after amino acid the state of the stat
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14-JUN-1996;
19-FEB-1997;
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CTLA-4; vaccine; diagnosis; binding assay; screening;
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US-10-105-200A-31

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13 US-09-837-867A-12
14 US-09-837-867A-12
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Patent NO. US20020028208A1
GENERAL INFORMATION:
APPLICANT: Collisson, Ellen W.
APPLICANT: Hash, Stephen M.
APPLICANT: Choi, InSoo
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CURRENT FILING DATE: 1999-04-30
EARLIER APPLICATION NUMBER: 60/083,869
EARLIER FILING DATE: 1998-05-01
NUMBER OF SEO ID NOS: 83
SOFTWARE: Patentin Ver. 2.1
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                   GAAATAACAGTAACTTCTAATAGAACAGAAAATTCTGGCATCATAAATTTGACCTGCTCA 480
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                                                              CAGGATAAGCTGGTTCTGTATGAGATATTCAGAGGCAAAGAGAACCCTCAAAATGTTCAT
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TETATACAAGGTTACCCAGAACCTAAGGAGATGTATTTTCAGCTAAACACTGAGAATTCA
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US-09-918-995-26057
US-09-918-995-14537
US-09-918-995-34571
US-09-918-995-34571
US-10-046-935-1265
US-10-146-502-1265
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Matches 948; Conserv
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                                                                                                                                                                                                                                                                                                 SOFTWARE: |
SEQ ID NO 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/09/303,040
CURRENT FILING DATE: 1999-04-30
EARLIER APPLICATION NUMBER: 60/083,870
EARLIER FILING DATE: 1998-05-01
NUMBER OF SEQ ID NOS: 82
SOFTWARE: Patentin Ver. 2.0
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APPLICANT: Cochran, Mark D.

TITLE OF INVENTION: Recombinant Virus Expressing Foreign DNA Encoding
TITLE OF INVENTION: Feline CD80, Feline CD86, Feline CD28, Feline CTLA-4
TITLE OF INVENTION: Feline Interferon-gama And Uses Thereof
FILE REFERENCE: 54957-B
                                                                                                                                                                                                                                              TYPE: DNA ORGANISM: feline FEATURE:
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APPLICANT: Gaiger, Alexander
APPLICANT: Manidon, Jane
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE
TITLE OF INVENTION: HEMATOLOGICAL MALIGNANCIES
FILE REFERENCE: 2077.001200
CURRENT APPLICATION NUMBER: US/09/796,692
CURRENT FILING DATE: 2001-03-01
PRIOR APPLICATION NUMBER: 60/186,126
PRIOR FILING DATE: 2000-03-01
PRIOR APPLICATION NUMBER: 60/190,479
PRIOR APPLICATION NUMBER: 60/200,545
PRIOR FILING DATE: 2000-04-27
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; LOCATION: (526)
; OTHER INFORMATION: n=A,T,C o;
; NAME/KEY: unsure
; LOCATION: (535)
; OTHER INFORMATION: n=A,T,C o:
US-09-796-692-7817
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CURRENT FILING DATE: 2001-03-01
PRIOR APPLICATION NUMBER: 60/186,126
PRIOR FILING DATE: 2000-03-01
PRIOR FILING DATE: 2000-03-17
PRIOR PPLICATION NUMBER: 60/200,545
PRIOR APPLICATION NUMBER: 60/200,545
PRIOR APPLICATION NUMBER: 60/200,303
PRIOR APPLICATION NUMBER: 60/200,303
PRIOR APPLICATION NUMBER: 60/200,779
PRIOR APPLICATION NUMBER: 60/200,779
PRIOR APPLICATION NUMBER: 60/200,799
PRIOR APPLICATION NUMBER: 60/200,999
PRIOR APPLICATION NUMBER: 60/200,999
PRIOR APPLICATION NUMBER: 60/202,084
PRIOR APPLICATION NUMBER: 60/202,084
PRIOR APPLICATION NUMBER: 60/202,084
PRIOR APPLICATION NUMBER: 60/202,084
PRIOR APPLICATION NUMBER: 60/206,201
PRIOR APPLICATION NUMBER: 60/206,201
PRIOR APPLICATION NUMBER: 60/218,950
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PRIOR FILING DATE: 2000-05-22
PRIOR APPLICATION NUMBER: 60/218,950
PRIOR FILING DATE: 2000-07-14
PRIOR APPLICATION NUMBER: 60/222,903
PRIOR FILING DATE: 2000-08-03
PRIOR APPLICATION NUMBER: 60/223,416
PRIOR APPLICATION NUMBER: 60/223,416
PRIOR APPLICATION NUMBER: 60/233,416
PRIOR FILING DATE: 2000-08-04
PRIOR FILING DATE: 2000-08-04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
APPLICANT: Gaiger, Alexander
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NUMBER OF SEQ ID NOS: 9597
SOFTWARE: FastSEQ for Windows Version
SEQ ID NO 7817
LENGTH: 551
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Best Local
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TITLE OF INVENTION: COMPOSITIONS AND METHODS FOI
TITLE OF INVENTION: HEMATOLOGICAL MALIGNANCIES
FILE REFERENCE: 2077.001200
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PRIOR APPLICATION NUMBER: 60/200,779
PRIOR FILING DATE: 2000-04-28
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PRIOR APPLICATION NUMBER: 60/
PRIOR FILING DATE: 2000-05-01
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               PRIOR FILING DATE: 2000-05-04
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PRIOR FILING DATE: 2000-04-28
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 Similarity 100.0%; 33; Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Algate, Paul A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 60/200,999
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Pred. No.
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APPLICATION NUMBER: 60/222,903

2000-08-03

FILING DATE:

APPLICATION NUMBER: 60/223,416

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; LOCATION: (574)
; OTHER INFORMATION: n=A,T,C or G
US-09-796-692-7754
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NUMBER OF SEQ ID NOS: 9597
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 7754
                                                                                 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: FastSEQ for Windows Version 4.0 SEQ ID NO 34 LENGTH: 751
                                                                                             Sequence 4, Application US/09845899A Patent No. US20020147326A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 34, Application US/10105200A Publication No. US20030072796A1
                                                                                                                                                                                                                                                                               Query Match
Best Local Similarity
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                              APPLICANT:
                                                                                                                                                                                                                                                                Matches
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APPLICANT: JACKSON, Michael
APPLICANT: PETERSON, PET A.
TITLE OF INVENTION: SYNTHETIC ANTIGEN PRESENTING
TITLE OF INVENTION: LIPOSOME SUPPORT
FILE REFERENCE: TSRI 471.0 Con. 3
CURRENT APPLICATION NUMBER: US/10/105,200A
CURRENT FILING DATE: 2002-06-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR FILING DATE: 1998-0 PRIOR APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICANT: CAI, Zeling APPLICANT: SPRENT, Joi
                                                             APPLICANT: CHAIKIN, MARGERY ANN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR APPLICATION NUMBER: US 09/042,492
TITLE OF INVENTION:
                APPLICANT:
                                                                                                                                                                                                                                                                                                                                            TYPE: DNA
ORGANISM: Homo Sapiens
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ORGANISM: Homo sapiens
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Local Similarity 100.0%;
es 33; Conservativo
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                                                                                                                                                                                                 TCAGTGCTTGCTAACTTCAGTCAACCTGAAATA 429
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                  TRUNEH,
                                SWEET, RAYMOND W.
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                                               SALLY DOREEN PATRICIA
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NUMBER: US 08/400,338
HEXAMERIC FUSION PROTEINS AND USES
                  ALEMSEGED
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7.2e-08;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CURRENT APPLICATION NUMBER: US/09/845,899A CURRENT FILING DATE: 2001-04-30 PRIOR APPLICATION NUMBER: 09/202,346 PRIOR FILING DATE: 1999-01-13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQ ID N
SOFTWARE: FastSEQ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NAME/KEY: CDS
LOCATION: (52)...(831)
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TYPE: DNA
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                                                                                                                                                        INFORMATION FOR SEQ ID NO: 11:
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                              MOLECULE TYPE: other nucleic acid
                                                                                                                                                                                                                                                                           APPLICATION NUMBER: 08/838,702
FILING DATE: <UNKNOWN>
ATTORNEY/AGENT INFORMATION:
NAME: Ingolia, Diane E.
                                                                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/826,025
FILING DATE: 04-Apr-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                             SEQUENCE CHARACTERISTICS:
LENGTH: 972 base pairs
TYPE: nucleic acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CORRESPONDENCE ADDRESS:
ADDRESSEE: Medlen & Carroll, LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Chang, Lung-Ji
TITLE OF INVENTION: Combination Immunogene Therapy
NUMBER OF SEQUENCES: 25
DESCRIPTION: /desc = "DNA"
SEQUENCE DESCRIPTION: SEQ ID NO: 11:
                                                                                                                                                                                                                  TELECOMMUNICATION INFORMATION
                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA
                                                                                                                                                                                                                                                                                                                                                                                                                                                      COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                             STRANDEDNESS: double
                                                                                                                                                                                                                                                          REGISTRATION NUMBER: 40,027
                                                                                                                                                                                                                                                                                                                                                                          CLASSIFICATION: <Unknown>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STATE: California
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CITY: San Francisco
                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: CHANG-02687
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STREET:
                                                                                                                                                                             TELEFAX: (415) 397-8338
                                                                                                                                                                                             TELEPHONE: (415) 705-8410
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A2045631

A0315914

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A20445702

AA1454734

AA2387434

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BB517100
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BB244292
BB078124
AZ602541
BB2322854
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BB347088
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BB557912
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BG116239
AG177885
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BF408097
N98388
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AG147934
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BB429395
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AG146101
BM922472
AW034773
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AV810683
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BB635605 BB635605
BM008797 503647 MA
BF137460 601780644
AZ121157 RPCI-23-1
AV250630 AV250630 AV250630
AW260541 um83a03.y
AW80260541 um83a03.y
AW800142 AV800143
AV810294 AV810294
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BG622615 602647359
AV810784 EST278809
BG6226176 CC-esfict
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BA11952 NF078665
BA11952 NF07866710
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BN76799 BG77709 C664225
AC147934 PAN TLOG1
BN537100 BB517100
BB53611 BD606710
BB606710 BB606710
BB330068 BB330068
AA75933 vw63c10.r
BB395266 BB395266
BB228677 BB228677
BB204987 BB204987
BB557912 BB557912
AV741053 AV741053
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Euteleostomi; Sus.

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RESULT 1
AA056906
LOCUS
                                                                           BASE COUNT
ORIGIN
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AUTHORS
TITLE
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VERSION
KEYWORDS
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                                       Query Match
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  379
                                      Local
  ATGAGTTCTGACCTATCAGTGCTTGCTAACTTCAGTCAACCTGAAATAA 427
                                                                                                                                                                                                                                                                                                                                                                            1 (bases 1 to 448)
Tuggle, C.K., Wahls, S. and Schmitz, C.
Expressed Sequence Tags from Pig Spl
Unpublished (1996)
                           49;
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448 bp mRNA linear EST 18-S EST224R Pig Spleen lambda gt 11 Library (Clontech Cat # PL10 cus scrofa cDNA clone SPL224 reverse similar to L25259 CTLA4 counter-receptor, human, mRNA sequence
                                                                                                                                                                                                                                                                                                                             Molecular Genetics Laboratory, Department of Animal Science
Iowa State University
201 Kildee Hall, Ames, IA 50011-3150, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AA056906.1 GI:1549546
EST
                                                                                                                                                                                                                          BACKWARD: GACCGGGGCTCAGCT
Insert Length: 950 Std Error:
Seq primer: GACCGGGGCTCAGCT.
                                                                                                                                                                                                                                                                                                                                                                    Contact: Tuggle CK
                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sus scrota
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              h 4.9%;
Similarity 100.0%;
49; Conservative
                                                                                                                                                                                                                                                                 FORWARD: TGGCGACGACTCCTG
                                                                                                                                                                                                                                                                                        Email: cktuggle@iastate.edu
                                                                                                                                                                                                                                                                                PCR PRimers
                                                                                        126
                                                                                                                                                                                                                                                                                                        5152942401
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                                                                                     /clone_lib="Pig Spleen lambda
# PL1006b)"
                                                                                                                                                                                                                  Location/Qualifiers
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391
406
412
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AQ518306
AV739230
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AI044777
AV749988
                          Score 49; DB; Pred. No. 3.7
                           0;
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BF293343
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AV741176
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AZ639695
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BB390709
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BE487802
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3.7e-14;
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AV749988 AV749988
BF037606 601461178
AV812067 AV812067
AZ63695 1M0501N13
AQ13240 HS_3101_B
AV741176 AV741176
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BB390709 BB390709
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AW254786 ML1069 pe
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AV739230 AV739230
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BE487802 176909 BA
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                           Gaps
                           0;
                                      REFERENCE
AUTHORS
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BI824940
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AUTHORS
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AA056905/c
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                                                                                                                                                                                                                                                                                                          Matches
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                                                                                                                                                                                                                                                        193 AACACTAAGGAAAAGGAAGAAGCAGCCTGGCCCCTCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    l Similarity
40; Conserv
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EST224F Pig Spleen lambda gt 11 Library (Clontech Cat # PL1006b)
Sus scrofa cDNA clone SPL224 forward similar to L25259 CTLA4
                                      Mammalia; Eutheria; Primates; Co
1 (bases 1 to 655)
NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, N
                                                                                                                                                                           BI824940 655
603032554F1 NIH_MGC_115 Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FORWARD: TGGCGACGACTCCTG
BACKWARD: GACCGGCGCTCAGCT
Insert Length: 950 Std Error:
Seq primer: TGGCGACGACTCCTG.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Iowa State University
201 Kildee Hall, Ames,
Tel: 5152944252
Fax: 5152942401
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     pig.
Sus scrofa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       counter-receptor , human, AA056905
              Unpublished (1999)
Contact: Robert Strausberg, Ph.D.
                                                                                                                               EST
                                                                                                                                                      mRNA sequence.
BI824940
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Contact: Tuggle CK Molecular Genetics Laboratory, Department of Animal Science
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota;
Mammalia;
                                                                                          Eukaryota; Metazoa;
                                                                                                      Homo sapiens
                                                                                                                   human.
                                                                                                                                          BI824940.1 GI:15936490
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PCR PRimers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Email: cktuggle@iastate.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unpublished (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Expressed Sequence Tags from Pig Spleen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Tuggle, C.K., Wahls, S. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AA056905.1 GI:1549545
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   cgapbs-r@mail.nih.gov
                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Sus scrofa"
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                                                                                                                                                                                                                                                                                                                     100.0%;
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                                                                             Chordata;
Primates;
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IA 50011-3150, USA
                                                                                                                                                                                                                                                                                                          Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     mRNA sequence
                                                                                                                                                                               bp mRNA linear EST 04-OCT-2001 sapiens cDNA clone IMAGE:5173789 5',
                                                                            Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                        Mammalian
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gt 11 Library (Clontech

Cat

849 154

Gene

Collection (MGC)

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Indels ;

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Gaps

0;

Length 512;

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others

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Result
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Perfect score:
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    score c
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length: 2000000000
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Match
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Copyright (c) 1993 - 2003
                                                                                                                                                                                                                                                                                                                                                                                                                            /cgn2_6/ptodata/1/ina/5A_COMB.seq: *
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US-08-848-760B-13
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US-09-336-186B-226
US-08-703-525-41
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 20, Appli 20, Appli 22, Appli 22, Appli 22, Appli 22, Appli 22, Appli 24, Appli 25, Appli 25, Appli 25, Appli 25, Appli 26, Appli 26, Appli 26, Appli 26, Appli 26, Appli 26, Appli 27, Ap
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CORRESPONDENCE ADDRESS:

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US-09-039-982A-34
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           COMPUTER: IBM PC COMPAtible
OPERATING SYSTEM: PC-DOS/MS-DOS
OPERATING SYSTEM: PC-DOS/MS-DOS
CURRENT APPLICATION DATA:
APPLICATION UNMBER: US/09/039,982A
FILING DATE: 16-MAR-1998
FILING DATE: 16-MAR-1998
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Olson, Arne M.
REGISTRATION NUMBER: 30,203
REGISTRATION NUMBER: TSR14710
                                                                                                                                                                                                                                                                                                          Query Match 3.3%;
Best Local Similarity 100.0%;
Matches 33; Conservative
                                                                                                                                                   Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TELECOMMUNICATION INFORMATION:
TELEPHONE: (312) 580-1180
TELEPAX: (312) 580-1189
INFORMATION FOR SEQ ID NO: 34:
                                                                                                                                  GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NUMBER OF SEQUENCES: 59
CORRESPONDENCE ADDRESS:
ADDRESS:
                                                                                APPLICANT:
APPLICANT:
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APPLICANT: Peterson, Per A
TITLE OF INVENTION: ANTIGEN PRESENTING SYSTEM AND METHODS FOR
TITLE OF INVENTION: ACTIVATION OF T-CELLS
NUMBER OF SEQUENCES: 45
                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE:
                                                                                                                                                                                                                                            STREET: 20 NO. 6
CITY: Chicago
STATE: Illinois
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20 No. 6225042th Wacker Drive, Suite 3000
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                                                                  Brunmark, Anders
Jackson, Michael
                                                                                                    Sprent, Jonathan
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Best Local Similarity
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 751 base pairs
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CURRENT APPLICATION DATA:
APPLICATION NUMBER: US
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NAME: Olson, Arne M.
REGISTRATION NUMBER: 30,203
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HYPOTHETICAL: NO
ANTI-SENSE: NO
                                                                                                                                                                                                                                                                          APPLICANT: Jackson, Michael
APPLICANT: Peterson, Per A.
TITLE OF INVENTION: ANTIGEN PRESENTING SYSTEM AND METHODS
TITLE OF INVENTION: FOR ACTIVATION OF T-CELLS
NUMBER OF SEQUENCES: 59
CORRESPONDENCE ADDRESS:
CORRESPONDENCE ADDRESS:
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CTTY: Chicago
         SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/039,762A
FILING DATE: 16-MAR-1998
CLASSIFICATION: 435
CLASSIFICATION: 435
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MEDIUM TYPE: Floppy disk
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ATTORNEY/AGENT INFORMATION:
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COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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CLASSIFICATION:
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                                                                                                     COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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20 No. 6255073th Wacker Drive, 36th Floor
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100.0%; Pred. No. 5.2e-07
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Perfect score:
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is the number of results predicted by chance to have
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gb_pl: *
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## SUMMARIES

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Choi; I.S., Hash, S.M., Winslow, B.J. and Collisson, E.W. Sequence analyses of feline B7 costimulatory molecules Vet. Immunol. Immunopathol. 73 (3-4), 219-231 (2000)
                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Ver
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Winslow, B.J.

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Collisson, E.W

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
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                                                                                                                                                                                                                                                                                                                                           GTTTTTGTGGGATGGTGTCCTTTAAAACACTAAGGAAAAGGAAGAAGAAGCAGCCTGGC
                                                                                                                                                                                                                                                                                 CCCTCTCATGAATGTGAAACCATCAAAAGGGAGAGAAAAAGAGAGCAAACAGACCAACGAA
                                                                                                                                                                                                                                                                                                                           GTTTTTTGTGGGATGGTGTCCTTTAAAACACTAAGGAAAAGGAAGAAGAAGCAGCCTGGC
                                                                                                                                                                                                                                                                                                                                                                                    TCTATCAGCTTGCCTTTTTCAGTCCCTGAAGCACACAATGTGAGCGTCTTTTGTGCCCCTG
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                                                                                                                                                                                                          AGAGTACCATACCACGTACCTGAGAGATCTGATGAAGCCCAGTGT 465
                                                                                                                                                                                                                                                                  CCCTCTCATGAATGTGAAACCATCAAAAGGGAGAGAAAAGAGAGCAAACAGACCAACGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                           AAACTGGAGACACTGGAGATGCTGCTCTCCCTACCTTTCAATATAGATGCACAACCTAAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAACTGGAGACACTGGAGATGCTGCTCTCCCTACCTTTCAATATAGATGCACAACCTAAG
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                            B-lymphocyte activation antigen B7-2 (CD86). Felis catus peripheral blood mononuclear cell cDNA Felis catus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (10-JUN-1999) Veterinary Pathobiology, Texas A&M University, Bldg. 1197 Rm. 222; College Station, TX 77843, USA
                                                                                      complete cds.
AB030652
                                                                                                                   AB030652
Felis catus mRNA
                                                                         AB030652.1 GI:9796387
                Eukaryota;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /product="CD86 antigen"
/product="CD86 antigen"
/product="CD86 antigen"
/product="CD86 antigen"
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IKDKGTYHCF1HYKGPKGLVPMHOMSSDLSVLANFSQPEITVTSNRPENSGIINLTCS
SIQGYBEPKEMYFQLNTENSTTKYDTVMKKSQNNVTELYNVSISLPFSVPEAHNVSVF
CALKLETLEMLLSLPFNLDAQPKDKDPSQGHFLWIAAVLVWFVVFCGMVSFKTLRKNK
KKQPGPSHECETIKRERKESKQTNERVPYHVPERSDEAQCVNILKTASGDKNQ"
a 245 c 246 g 289 t
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/db_xref="taxon:9685"
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Eutheria; Carnivora; Fissipedia; Felidae;
                Metazoa; Chordata;
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Pred. No. 7.1e-240;
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               Craniata; Vertebrata;
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n B7-2 (CD86),
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TITLE
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Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                        121 TCTATCAGCTTGCCTTTTTCAGTCCCTGAAGCACACAATGTGAGCGTCTTTTGTGCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              723 ATACAAGGTTACCCAGAACCTAAGGAGATGTATTTTCAGCTAAACACTGAGAATTCAACT
                                                                                                                                                                                                    ACTAAGTATGATACTGTCATGAAGAAATCTCAAAATAATGTGACAGAACTGTTACAACGTT
                  CCCTCTCATGAATGTGAAACCATCAAAAGGGAAGAGAAAAGAGAGCAAACAGACCAACGAA
                                                                                                       GTTTTTTGTGGGATGGTGTCCTTTAAAACACTAAGGAAAAGGAAGAAGAAGCAGCCTGGC
                                                                                                                                                                   ANACTGGAGACACTGGAGATGCTGCTCTCCCTACCTTTCAATATAGATGCACAACCTAAG
                                                                                                                                                                                                                                                                                                                   AAACTGGAGACACTGGAGATGCTGCTCTCCCTACCTTTCAATATAGATGCACAACCTAAG
                                                                                                                                                                                                                                                                                                                                                             ACTAAGTATGATACTGTCATGAAGAAATCTCAAAATAATGTGACAGAACTGTACAACGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATACAAGGTTACCCAGAACCTAAGGAGATGTATTTCAGCTAAACACTGAGAATTCAACT
CCCTCTCATGAATGTGAAACCATCAAAAGGGAGAGAAAAGAGAGCAAACAGACCAACGAA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Nishimura, Y.

Direct Submission
Submitted (31-JUL-1999) Yorihiro Nishimura, Faculty of Agriculture,
The University of Tokyo, Department of Veterinary Microbiology;
1-1-1 Yayoi, Bunkyo-ku, Tokyo 113-8657, Japan
[E-mail:yorihiro@crocus.ocn.ne.jp, Tel:+81-3-5841-5396,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Nishimura,Y., Shimojima,M., Miyazawa,T., Sato,E., Nakamura,K., Izumiya,Y., Ikeda,Y., Mikami,T. and Takahashi,E.
Molecular cloning of the cDNAs encoding the feline B-lymphocyte activation antigen B7-1 (CD80) and B7-2 (CD86) homologues which interact with human CTLA4-Ig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Fax:+81-3-5841-8184)
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/gene="CD86"
a 281 c
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NSQNISLDELVVFMQNGDKLVLYEIFRGKENDQNVHLKYKGTTSEDKDNWTLRLHNVQ
IKDKGTYHCFIHYKGPKGLVPMHOMSSDLSVLANFSQDEITVTSNRTENSGIINLTCS
SIQGYPEPKEMYFQLNTENSTTKYDTVMKKSQNNVTELYNVSISLPFSVPEAHNVSVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CALKLETLEMLLSLPFNIDAQPKDKDPEQGHFLWIAAVLVMFVVFCGMVSFKTLRKRK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /codon_start=1
/product="B-lymphocyte
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KKOPGPSHECETIKRERKESKQTNERVPYHVPERSDEAQCVNILKTASGDKSTTHF"
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/db_xref="taxon:9685"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          type="peripheral blood mononuclear cell"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
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Pred. No. 7e-240;
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AUTHORS
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SOURCE
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DEFINITION
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SOURCE
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Matches 56
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                                                                                                                                AGAGTACCATACCACGTACCTGAGAGATCTGATGAAGCCCAGTGT
 Canis
Canis
                                               AF106827 179
Canis familiaris truncated
AF106827
                                      106827.1
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Submitted (16-NOV-1998) Basic Immunology, Heska Corporaton, 1825
Sharp Point Drive, Fort Collins, CO 80525, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Canis familiaris
Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Canis familiaris B7-2 protein AF106826
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Yang, S. and Sim, G.-K.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New
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                                                                                                                                                                                             Similarity
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IQGYPEPKEMYFLVKTENSSTKYDTVMKKSQNNVTELYNVSISLSFSVPEASNVSIFC
VLQLESMKLPSLPYNIDAHTKPTPDGDHILWIAALLVMLVILCGMVFFLTLRKRKKKQ
                                                                                                                                                                                                                                                                     PGPSHECETNKVERKESEQTKERVRYHETERSDEAQCVNISKTASGDNSTTQF"996...1897
                                                                                                                                                                                                                                                                                                                            /translation="mylrcimelnnilfvmilllygaasmksqayfnkigelpchfin
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                                                                                                                                                                                                                                                      /gene="CD86"
                                                                                                                                                                                                                                                                                                                                                                                        /codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                    /gene="CD86"
/function="counter-receptor for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /organism="Canis familiaris"
/db_xref="taxon:9615"
                                                                                                                                                                                                                                                                                                                                                                                                                                       /gene="CD86"
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                                      GI:6572518
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1897
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                                                                                                                                                                                Score 56; DB ; Pred. No. 7.5; 0; Mismatches
                                                                                                                                                                                                                                             383
                                                                        1795
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B7-2
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protein
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7.5e-19;
hes 0;
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                                                            (CD86) mRNA,
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                                                                        MAM 14-DEC-1999
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MEDLINE
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Best Local
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            GSDB:S:74002
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                                   J. Immunol.
97047772
                                                                                                                                                         Sus scrofa
                                                                                                                                                                    Sus scrofa.
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                          8892613
                                                                                             Bothwell, A.L.
                                                                                                                                                                                                         L76099
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Location/Qualifiers
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Submitted (16-NOV-1998) Basic Immunology, Heska Corporaton, 1825
Sharp Point Drive, Fort Collins, CO 80525, USA
Location/Qualifiers
                                       Porcine endothelial CD86 is a major human T cells; cloning, sequencing,
                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae;
1 (bases 1 to 994)
Maher, S.E., Karmann, K., Min, W., Hughes, C.C., Pober, J.
                                                                                                                                                                                                                                  L76099.1 GI:2198558
T cell costimulation.
                                                                                                                                                                                                                                                                                                  Sus scrofa CD86 mRNA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis. 1 (bases 1 to 1795)
Yang,S. and Sim,G.K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2 (bases 1 to 1795)
Yang, S. and Sim, G.-K.
                      numan endothelial cells
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            h 8.3%; S
Similarity 100.0%;
42; Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Immunogenetics 50 (5-6),
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IQGYPEPKEMYFLVKTENSSTKYDTVMKKSQNNVTELYNVSISLSFSVPEASNVSIFC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /translation="MYLRCTMELNNILFVMTLLLYGAASMKSQAYFNKTGELPCHFTN
SQNISLDELVVFWQDQDKLVLYELYRGKENPQNVHRKYKGRTSFDKDNWTLRLHNIQI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /gene="CD86"
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/product="truncated B7-2 protein"
/protein_id="AAF17298.1"
/db_xref="G1:6572519"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Canis familiaris"
/db_xref="taxon:9615"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /function="counter-receptor for CD28 and CD152 (CTLA4)"
/note="lacks transmembrane domain; alternatively spliced"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /gene="CD86"
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.1795
(9),
3838-3844 (1996)
                                                                                                                                                                                                                                                                                                complete
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Pred. No. 2.8e-11;
0; Mismatches 0;
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                                         functional expression
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Sus.
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AACACTAAGGAAAAGGAAGAAGCAGCCTGGCCCCTCT 828
                                                                                                                                                                                                                                                                                                                                                                                                                                 1 Similarity
40; Conser
                                                                                                                                                                                                                                                                                                                             Sequence 13
AX027016
AX027016.1
                                                                                                                                                                                 Immunosuppression
Patent: WO 0037102-A 13 29-JUN-2000;
ROGERS NICHOLA JANE (GB) ; DORLING ANTHONY (GB) ; ML LAB PLC (GB) ;
LECHLER ROBERT IAN (GB)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    40; Conservative
                                                                                                                                                                                                                                  1 (bases 1 to 994)
Rogers, N.J., Dorling, A. and Lechler, R.I.
                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae;
                                                                                                                                                                                                                                                                                         pig.
Sus scrofa
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                                                    Conservative
                                                                                                                  /db_xref="taxon:9823"
241 c 202 g
                                                                                                                                                                    Location/Qualifiers
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                                                                                                                                         organism="Sus scrofa"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /evidence=experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      QRMYMLLNTKNSTTEHDADMKKSQNNITELYNVSIRVSLPIPPETNVSIVGVLQLEPS
KTLLFSLPCNIDAKPPVQPPVPDHILWIAALLVTVVVVCGMVSFVTLRKRKKKQPGPS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DELVIFWQDODNLVLYELYRGQEKPHNVNSKYMGRTŠFDQATWTLRLHNVQIKDKGSY
QCFIHHKGPHGLVPIHQMSSDLSLLANFSQPEINLLINHTENSVINLTCSSTQGYPEP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /protein_id="AAB61307.1"
/db_xref="GI:2198559"
/translation="MGLSNILFYMVLLLSGAASLKSQAYFNETGELPCHFTNSQNLSL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NECGETIKMNRKASEQTKNRAEVHERSDDAQCDVNILKTASDDNSTTDF"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note="putative"
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/clone_lib="3"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /db_xref="taxon:9823"
/cell_line="PEC-A"
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                                                                                                                                                                                                                                                                                                                             GI:10188045
                                                               7.9%;
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                                                    0;
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                                                               Score 40;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 40;
Pred. No.
                                                 Mismatches
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                                            DB 6; Lc
3.6e-10;
0;
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                                                 0,
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                                              Gaps
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AC016425
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Baldwin, J., Barna, N., Beckerly, R., Boguslavkly, L., Boukhgalter, B., Brown, A., Castle, A., Colangelo, M., Collins, S., Collymore, A., Cooke, P., DeArellano, K., Dewar, K., Domino, M., Donelan, L., Doyle, M., Ferreita, P., Fitchlugh, W., Forrest, C., Funke, R., Gage, D., Galagan, J., Gardyna, S., Grant, G., Hagos, B., Heaford, A., Horton, L., Howland, J.C., Johnson, R., Jones, C., Kann, L., Karatas, A., Klein, J., Lehozky, J., Lieu, C., Locke, K., Macdonald, P., Marquis, N., McEwan, P., McGurk, A., McKernan, K., McLaughlin, J., Meldrim, J., Morrow, J., Naylor, J., Norman, C. H., O'Connor, T., O'Donnell, P., Peterson, K., Pollara, V., Riley, R., Roy, A., Santos, R., Severy, P., Stange-Thomann, N., Stojanovic, N., Subramanian, A., Talamas, J., Tesfaye, S., Tirrell, A., Vassiliev, H., Vo, A., Wheeler, J., Wu, X., Wyman, D., Ye, W.J., Zimmer, A., and Zody, M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Submitted (26-NOV-1999) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA On NOV 24, 2000 this sequence version replaced gi:9123862. All repeats were identified using RepeatMasker: Smit, A.F.A. & Green, P. (1996-1997) http://ftp.genome.washington.edu/RM/RepeatMasker.html
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Birren, B., Linton, L.,
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                                                                                                                                                                                                                                                                                                                                                                                                                                        NOTE: This record contains 82 individual sequencing reads that have not been assembled into contigs. Runs of N are used to separate the reads and the order in which they appear is completely arbitrary. Low-pass sequence sampling is useful for identifying clones that may be gene-rich and allows overlap relationships among clones to be deduced. However, it should not be assumed that this clone will be sequenced to completion. In the event that the record is updated, the accession number will
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AC016425.4 GI:11
HTG; HTGS_PHASE0.
                                                                                                                                                                                                                                                                                                                                                                                                                       be preserved.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Web site: http://www-seq.wi.mit.edu
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Center code: WIBR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Center: Whitehead Institute/ MIT Center for Genome Research
                                                                                                                                                                                                                                                   1527: contig of 711 bp in
1528 1627: gap of 100 bp
1628 2337: contig of 710 bp in
2338 2437: gap of
                                                                           1 4858: gap (
5552:
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3958:
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6353:
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                                                                                                                                                                                                                                     3146:
                                                                                                                                 8: gap
4758:
                                                contig of 694 bp
                                                                                                                                                       contig of 712 bp in of 100 hr
                                                                                                                                                                                                          of 100 bp in length of 100 bp
                                                                                                                                                                                                                                                           of 100 bp contig of 710 bp in length of 100 bp
        contig
of
                                                                                                                              of 100 bp
contig of 700 bp
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100 bp
3 of 701 bp :
100 bp
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14437 14536:

3647 13746: 2841 12940:

1245 11344:

12062

8905: 8086:

9602:

16: gap of 8805: con

gap of \$02.

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19321 19420: gap of 100 bp 19421 20143 202442: gap of 100 bp 20143 20242: gap of 100 bp 20143 20242: gap of 100 bp 20243 21063 21062: gap of 100 bp 20263 21063 2181: gap of 100 bp 2182 21881: gap of 100 bp 2182 22603 contig of 691 bp 22603 22704 2394: contig of 691 bp 2395 23494: gap of 100 bp 2395 2444: gap of 100 bp 2395 24491: gap of 100 bp 2492 2491: gap of 100 bp 2492 25013 contig of 722 bp 100 bp 25014 25113: gap of 100 bp 25015 25924: gap of 100 bp 25015 25924: gap of 100 bp 25015 25924: gap of 100 bp 2647 27437: contig of 722 bp 100 bp 27438 27537: gap of 100 bp 27535 29870 29969: gap of 100 bp 27535 29870 29969: gap of 100 bp 27535 29870 29969: gap of 100 bp 27536: gap of 100 bp 27537: gap of 100 bp 27
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   91 32390: gap of 100 bp in 14
91 33110: contig of 720 bp in 14
11 33110: gap of 100 bp in 14
11 3393: contig of 723 bp in 14
34 34033: gap of 100 bp in 14
34 34763: contig of 730 bp in 14
34 34863: gap of 100 bp in 14
64 34863: gap of 100 bp in 14
68 35679: gap of 100 bp in 14
80 35679: gap of 704 bp in 14
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10418: contig of 716
10518: gap of 100 b
11244: contig of 726
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7268: gap of 100 bp
7986: contig of 718 bp in length
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12840: contig of 6
2940: gap of 10
13646: contig of 7
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14436: contig of 1
36: gap of 1
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62: contig of 718 bp
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f 722 bp in length
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f 691 bp in length
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f 717 bp in length
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AC090991
LOCUS
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                                                                                                             DEFINITION
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Best Local
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                Homo sapiens chromosome
SEQUENCE SAMPLING.
AC090991
AC090991.1 GI:13431041
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22; Conser
                                                                                                                                                 AC090991
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51798 52533: contig of 736 bp in length

52534 52633: gap of 100 bp

52634 53345: contig of 712 bp in length

53346 53445: gap of 100 bp

53446 54158: contig of 713 bp in length
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38715 3819: gap of 705

38815 39519: contig of 705

39520 39619: gap of 100 b

39520 40336: contig of 707

40337 6045
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46946 47650: contig of 705 bp in length
47651 47750: gap of 100 bp
47751 48465: contig of 715 bp in length
48466 48565: gap of 100 bp
48466 49268: contig of 703 bp in length
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19369 50088: contig of 720 bp in
10089 50188: gap of 100 bp
10189 50893: contig of 705 bp in
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27 41147: contid of 721 bp

18 41247: gap of 100 bp

18 41962: contid of 715 bp

23 42062: gap of 100 bp

23 42763: contid of 701 bp
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37953: contig of 659
38053: gap of 100
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45254: contig of
45354: gap of 1
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37194: contig of
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54943: contig of 685 bp in length
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55754: contig of 711 bp in length
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156; gap of 100 1
46845; contig of 689
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154: gap of 174 bp in length
58: gap of 100 bp
58987: contig of 719 bp in length
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OM nucleic - nucleic search, using sw model Run on: GenCore version 5.1.4\_p5\_4578 Copyright (c) 1993 - 2003 Compugen Ltd.

Perfect score: US-09-646-561-30 509 April 22, 2003, 16:39:04; Search time 140.247 Seconds (without alignments) 8173.182 Million cell updates/sec atacaaggttacccagaacc.....ggcgacaaaagtactacaca

Searched: Gapop 60.0 , 2185239 seqs, 1125999159 Gapext 60.0

Scoring table:

OLIGO\_NUC

Word size 0 residues

Total number of hits satisfying chosen parameters:

Minimum DB Maximum DB seq length: 0 seq length: 2000000000

Post-processing: Listing first 100 summaries

N\_Geneseq\_101002:\* /SIDS2/gcgdata/geneseq/geneseqn-emb1/NA1980.DAT:\*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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                                                                                                                                   The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                graft
                                        development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection, diagnosis and drug screening.
                                                                                                                                                                                                                                                                                                      Claim 1;
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Query Match

100.0%;

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20; Length 509;

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develop products

for

Sequence 509

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170 A; 109 C; 106 G; 124 T; 0 other;

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RESULT 2
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ID AAZZ7934;
XX
AC AAZZ7934;
XY
AC AAZZ7934;
XY
AC AAZZ7934;
Y
CO-DEC-1999 (first
XX
DE Feline B7-2 gene (la
XX
B7; CTLA4; T cell cc
KW B7; CTLA4; T cell cc
KW graft rejection; inf
KW graft rejection; inf
XX
PN W09947558-A2.
XX
PD 23-SEP-1999.
XX
PD 23-SEP-1999.
XX
PD 23-SEP-1999; 99WO-
XX
PD 19-MAR-1998; 98US-
PR 17-APR-1998; 98US-
PR 19-MAR-1998; 98US-
PR 17-APR-1998; 98US-
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PR 17-APR-1998; 98US-
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17-APR-1998;
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DB; AAY41079.
                                                                                                         ACAGCCTCAGGCGACAAAAGTACTACACA
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                                              AGAGTACCATACCACGTACCTGAGAGATCTGATGAAGCCCAGTGTATTAACATTTTGAAG
                                                               AGAGTACCATACCACGTACCTGAGAGATCTGATGAAGCCCCAGTGTATTAACATTTTGAAG
                                                                                            CCCTCTCATGAATGTGAAACCATCAAAAGGGAGAGAAAAGAGAGCAAACAGACCAACGAA
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al Similarity 100.0%;
509; Conservation
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98US-0062597
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Pred. No. 1.9e-247;
Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 1; Page 124-125; 148pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         graft rejection; inflammation; arthritis; atopic dermatitis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       allergic reaction;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New isolated B7 and CTLA4 nucleic acids, used treating, e.g. autoimmune and atopic diseases
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                              AAACTGGAGACACTGGAGATGCTGCTCTCCCTACCTTTCAATATAGATGCACAACCTAAG
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and drug screening.
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98US-0062597
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RESULT 5
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                                                                                                                                                                                                                                          Claim
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to
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                                                                     Length
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                                              Gaps
                                                                                                                                                                                            molecules
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RESULT 6
AAZ27930/c
ID AAZ27930;
XX AZ27930;
AC AAZ27930;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune di allergic reaction; infectious disease; tumor development; feline graft rejection; inflammation; arthritis; atopic dermatitis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Feline B7-2 gene complementary DNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1022
The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases,
                                                                                                                                                                                                                                                                                                                                                                                                                                          19-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20-DEC-1999
                                                                                                                                                            New isolated B7 and CTLA4 nucleic acids, used treating, e.g. autoimmune and atopic diseases
                                                                                                                                                                                                                                 WPI; 1999-571822/48
                                                                                                                                                                                                                                                                                                                           (HESK-) HESKA
                                                                                                                                                                                                                                                                                                                                                                       19-MAR-1998;
17-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      W09947558-A2
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                                                                                                                                                                                                                                                                           Yang S,
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                                                                                                                    121-123;
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98US-0062597
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RRESULT 7
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ID AAZJ3
AC AAZ3
AC AAZ3
AC Feli
XX CD86
KW CD86
KW Limmu
OS Feli
XX Feli
XX EFH Key
FT CDS
FT CDS
FT CDS
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11-N
XX OO-9
PN 30-2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitls. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection,
                                                                                                                                                                                                                                                                                                                                   1689
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                                                                                                                            Felis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 2830 BP; 797 A; 586 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       diagnosis and drug screening.
                                                                                                                                                                                                                                            AAZ34838;
                                                                                                                                                                                                                                                                   AAZ34838
                                                 WO9957295-A1
                                                                                                                                                                                           Feline CD86
                                                                                                                                                                                                                   28-FEB-2000
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                                                                                                                                                    immunomodulator;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              361
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GATAAAGACCCTGAACAAGGCCACTTCCTCTGGATTGCGGCTGTACTTTGTAATGTTTTGTT 300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ACTAAGTATGATACTGTCATGAAGAAATCTCAAAATAATGTGACAGAACTGTACAACGTT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                    ACAGCCTCAGGCGACAAAAGTACTACACA 509
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TCTATCAGCTTGCCTTTTTCAGTCCCTGAAGCACAATGTGAGCGTCTTTTGTGCCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ACTAAGTATGATACTGTCATGAAGAAATCTCAAAATAATGTGACAGAACTGTACAACGTT
                                                                                                                                                                                                                                                                                                                                   ACAGCCTCAGGCGACAAAAGTACTACACA 1661
                                                                                                                                                                                                                                                                                                                                                                                   AGAGTACCATACCACGTACCTGAGAGATCTGATGAAGCCCCAGTGTATTAACATTTTGAAG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAACTGGAGACACTGGAGATGCTGCTCTCCCTACCTTTCAATATAGATGCACAACCTAAG 240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               al Similarity
509; Conserv
                                                                                                                                                               B7-2; feline; cat;
                                                                                                                             domesticus
                                                                                                                                                                                                                                                                    standard;
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                                                                                                                                                                                         (B7-2) cDNA
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                                                                                       Location/Qualifiers 63..1052
                                                                                                                                                      tumour;
                                                                                                                                                                                                                                                                    cDNA; 1080
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                                                                                                                                                                 recombinant virus; vaccine;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 509; DB 20; Pred. No. 1.9e-247;
                                                                                                                                                                                                                                                                    ВP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                570 G; 877 T; 0 other;
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30-APR-1999;

99WO-US09504

11-NOV-1999

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This is the nucleotide sequence of cDNA coding for feline CD86 (B7-2). The cDNA was isolated from feline peripheral blood mononuclear cell cDNA by PCR. Manipulating the expression of CD28 or CTLA-4 (and/or their co-stimulatory ligands CD80 and CD86) regulates T cell proliferation and cytokine release. The invention relates to a recombinant virus that contains at least one foreign nucleic acid, inserted into a nonessential genomic region, that encodes feline CD28, CD80, CD86 or CTLA-4 protein, or their immunogenic fragments, and is expressed when the recombinant virus further comprising a foreign nucleic acid encoding an immunogen derived from a feline pathogen; recombinant viruses capable of enhancing an immune response to protect against disease; recombinant viruses expressing antisense sequences, capable of suppressing an immune response in a feline, e.g. for treatment of autoimmune disease or transplant rejection; and recombinant viruses expressing DNA encoding CD80 and/or CD86 used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Fig 3A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Winslow BJ, Cochran
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      reduce or eliminate a tumour
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                 AGAGTACCATACCACGTACCTGAGAGATCTGATGAAGCCCAGTGT 465
                                                                                                  AAACTGGAGACACTGGAGATGCTGCTCTCCCCTACCTTTCAATATAGATGCACAACCTAAG
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AGAGTACCATACCACGTACCTGAGAGATCTGATGAAGCCCAGTGT 1010
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                                                                                                                                                                                                                                                                                                                                                                                                            TCTATCAGCTTGCCTTTTTCAGTCCCTGAAGCACAATGTGAGCGTCTTTTGTGCCCTG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                recombinant virus
                                                                               CCCTCTCATGAATGTGAAACCATCAAAAGGGAGAGAAAAGAGAGCAAACAGACCAACGAA
                                                                                                                                                                                                                                             465;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SCHERING-PLOUGH
SCHERING-PLOUGH
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 465;
Pred. No.
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ARESULT 8
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CC (B7-2) ligand (see AAY32278). It was obtained following RT-PCR of CC (B7-2) ligand (see AAY32278). It was obtained following RT-PCR of CC (B7-2) ligand (see AAY32278). It was obtained following RT-PCR of CC (CD (B7-2) ligand is designated PSI-2H19-2/011298 (ANYC 209821). CC The coexpression of CD86 with the costimulatory molecules CD28 (see CC AAY32279) and a tumour antigen or an antigen from a pathogenic CC (T-lymphocytes. Coexpression of CD86 with CTLA-4 (see AAY32280) has CC (T-lymphocytes. Coexpression of CD86 with CTLA-4 (see AAY32280) has CC (T-lymphocytes. Coexpression of CD86 with CTLA-4 (see AAY32280) has CC (T-lymphocytes. Coexpression of CD86 with CTLA-4 (see AAY32280) has CC (CD152) receptor, as well as vectors comprising the nucleic acids and polypeptides encoded by the nucleic acids. It also provides CC vaccines comprising the CD80, CD86, CD28 or CTLA-4 polypeptides and CC feline immunodeficiency virus (FIV), feline leukaemia virus, feline calicivirus, feline reovirus, feline panleukopaenia virus, feline calicivirus, feline servirus, feline panleukopaenia virus, feline calicivirus, feline rotavirus, feline for crowprius, feline rotavirus, feline calicivirus, feline panleukopaenia virus, feline calicivirus, feline panleukopaenia virus, feline calicivirus, feline panleukopaenia virus, feline calicivirus, feline rotavirus, feline calicivirus, feline sercoma virus, feline calicivirus, feline panleukopaenia virus, feline calicivirus, feline calicivirus, feline calicivirus, feline calicivirus, feline calicivirus, feline
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Novel feline proteins used to produce feline vaccines which prevent infectious disease or to promote growth in homologous or heterologous species -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                parasite;
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XX OB-A
DT O8-A
DT O8-A
XX Cat;
KW feli
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Best Local Similarity
Matches 465; Conser
                                                                         01-MAY-1998;
                                                                                                               02-MAY-2002
                                                                                                                                   US2002051792-A1
                                                                                                                                                                             Cat; CD28; CD80; CTLA-4; CD86; immunogen; vaccine; viral infection; feline immunodeficiency disease; feline infectious peritonitis; feline leukaemia virus; cancer; degenerative disease; autoimmune di
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                                                                                             30-APR-1999;
                                                                                                                                                     Felis catus
                                                                                                                                                                                                                       Feline CD86
                                                                                                                                                                                                                                                                               AAL46840 standard; cDNA; 1080
                                             (WINS/) WINSLOW (COCH/) COCHRAN
                                                                                                                                                                        virucide; immunomodulator;
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ilarity 100.0%;
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Pred. No. 3.
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420 905 360 845 300 785 240 725 180 665 120

WPI; 2002-415200/44

RESULT 10
ABK48230
ID ABK48
XX
AC ABK48
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DT 02-JU
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CDNA
XX
CAL;
KW CaL;
KW CD28;
KW CD28;
KW CP28;
KW CP21in

encoding

CD86 protein.

02-JUL-2002

(first feline

entry)

ABK48230;

ABK48230 standard;

cDNA;

1080

ВP

1010

Cat; vaccine; feline immunodeficiency virus; FIV; immunosuppressant; feline infectious peritonitis; gene; ss; CB00 liqand; CD86 liqand; CD88; receptor; CTLA-4; vaccine; rabies; autoimmune disease; organ transplant; toxoplasmosis gondii; flea; parasite; panleukopaen feline leukaemia; FeLV; calcivirus; rotavirus; reovirus type 3;

panleukopaenia; type 3;

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New recombinant virus, useful for immunizing felines to prevent or treat feline immunodeficiency virus, comprises foreign nucleic acid encoding feline cytotoxic T lymphocyte accessory molecules CD28, CD80, CD86 or CTLA-4
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                                                                                                                                                                                                                                                       AAACTGGAGACACTGGAGATGCTGCTCTCCCCTACCTTTCAATATAGATGCACAACCTAAG
AGAGTACCATACCTGACCTGAGAGATCTGATGAAGCCCCAGTGT
                                                         CCCTCTCATGAATGTGAAACCATCAAAAGGGAGAGAAAAGAGAGCAAACAGACCAACGAA
                                                                                                                 GTTTTTTGTGGGATGGTGTCCTTTAAAACACTAAGGAAAAGGAAGAAGAAGCAGCCTGGC
                                                                                                                                                                              TCTATCAGCTTGCCTTTTTCAGTCCCTGAAGCACACAATGTGAGCGTCTTTTTGTGCCCTG
                                                                                                                                                                                                                                                                                                                                                           ACTAAGTATGATACTGTCATGAAGAAATCTCAAAATAATGTGACAGAACTGTACAACGTT
                                                                                                                                                                                                                                       AAACTGGAGACACTGGAGATGCTGCTCCCCTACCTTTCAATATAGATGCACAACCTAAG
                                                                                                                                                                                                                                                                                                 TCTATCAGCTTGCCTTTTTCAGTCCCTGAAGCACAATGTGAGCGTCTTTTGTGCCCTG
                                                                                                                                                                                                                                                                                                                                                                                                                   ATACAAGGTTACCCAGAACCTAAGGAGATGTATTTTCAGCTAAACACTGAGAATTCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               465;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 3; 77pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       333 A; 233 C; 235 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             91.4%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0,:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 465; DB 24;
; Pred. No. 3.5e-225;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       279 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
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                                                                                                                                                                                                                                                                                                                                                                                                                  CC CD28 receptor and soluble or membrane bound CTLA-4 receptor. The convention also relates to a vaccine is useful for inducing immunity or enhancing an immune response in a cat. The protein sequences of the companion are useful for suppressing an immune response in a feline companion transplant. A vector containing the DNA sequences of the corgan transplant. A vector containing the DNA sequences of the corgan transplant. A vector containing the DNA sequences of the corgan transplant. A vector containing the DNA sequences of the corgan transplant. A vector containing the DNA sequences of the corgan transplant. A vector containing the DNA sequences of the corgan transplant. A vector containing the DNA sequences of the corgan transplant. A vector containing the DNA sequences of the corgan munodeficiency virus, feline leukaemia (FeLV), feline containing the containing transplant of the corgan virus, calcivirus, cornavirus, syncitial virus, herpes virus, creavirus type 3, rotavirus, cornavirus, syncitial virus, herpes virus, calcivirus, cornavirus, syncitial virus, herpes virus, cornavir
                                                                                                                                                                                                                                                                 Query Match
Best Local Similarity
                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Polynucleotide encoding polypeptide of CD80 ligand, CD86 ligand, CD28 receptor or CTLA-4 receptor as vaccine for inducing immune response in feline suffering from autoimmune disease or tissue or organ transplant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (COLL/) COLLISSON E W. (HASH/) HASH S M. (CHOI/) CHOI I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      01-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              07-MAR-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           US2002028208-A1.
                                                                                                                                                                                                                                                                                                                                                                               effects on overall or long term health. The present sequence a cDNA encoding the feline CD86 protein of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Collisson EW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Felis sp.
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                                                                                                                                                                                                                                                                                                                                     Sequence
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                                                                                                                                                       546 ATACAAGGTTACCCAGAACCTAAGGAGATGTATTTTCAGCTAAACACTGAGAATTCAACT
                                                                                          61 ACTAAGTATGATACTGTCATGAAGAAATCTCCAAAATAATGTGACAGAACTGTACAACGTT
                                                                                                                                                                                                μ,
                                                                                                                                                                         ATACAAGGTTACCCAGAACCTAAGGAGATGTATTTTCAGCTAAACACTGAGAATTCAACT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               invention relates to the DNA and protein sequences encoding a ble CD80 ligand, soluble CD86 ligand, soluble and membrane bound
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       2002-315045/35.
DB; AAU78121.
                                                                   ACTAAGTATGATACTGTCATGAAGAAATCTCAAAATAATGTGACAGAACTGTACAACGTT
                                                                                                                                                                                                                                               465;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6; Fig 3A;
ATCAGCTTGCCTTTTTCAGTCCCTGAAGCACACAATGTGAGCGTCTTTTGTGCCCTG
                                                                                                                                                                                                                                                                                                                                     1080 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         herpes; borna disease
                                                                                                                                                                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hash
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Location/Qualifiers 63..1052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                73pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /product= "CD86 protein"
                                                                                                                                                                                                                                                                                                                                   333 A; 233 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         , MS
                                                                                                                                                                                                                                                                 91.48;
100.08;
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                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                 Score 465;
Pred. No.
                                                                                                                                                                                                                                                                                                                                   235 G; 279 T; 0 other;
                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                 DB 24;
3.5e-225;
                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                      Length 1080;
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                                                                                                                                                                                                                                                                                                                                                                                                      represents
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Query Match

Sequence

359

BP;

128 A;

79 Ç;

T; 0 other; DB 20;

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Score 69 G; 83

227;

Length

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RESULT 11
AAZ27935
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                                The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecule and the encoded proteins can be used for preventing or treating diseases e.g. autoimmune diseases; allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic disease such as atopic dermatitis. They can be used in mammals such humans, dogs cats, cattle, sheep or pets. The products can also be used for detection
                                                                                                                                                                                                                                                                                                                                                                                                                                                       graft rejection; inflammation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   allergic reaction;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; feline;
                                                                                                                                                                                                                                                            Sim G,
                                                                                                                                                                                                                                                                                                               19-MAR-1998;
17-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                      W09947558-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Feline B7-2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  20-DEC-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAZ27935 standard;
                                                                                                                                                      Claim 1; Page 127-128; 148pp; English
                                                                                                                                                                               treating,
                                                                                                                                                                                             New isolated B7 and
                                                                                                                                                                                                                      P-PSDB;
                                                                                                                                                                                                                                                                                     (HESK-) HESKA CORP
                                                                                                                                                                                                                                                                                                                                                     19-MAR-1999;
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                                                                                                                                                                                                                                    1999-571822/48
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                                                                                                                                                                                                                      AAY41081.
                                                                                                                                                                                                                                                           Yang S,
                                                                                                                                                                               e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first
                     sheep or pets
drug screening
                                                                                                                                                                               7 and CTLA4 nucleic acids, used autoimmune and atopic diseases
                                                                                                                                                                                                                                                                                                               98US-0078765
98US-0062597
                                                                                                                                                                                                                                                                                                                                                     99WO-US06187
                                                                                                                                                                                                                                                            Sellins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (smaller fragment) encoding DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        arthritis; atopic dermatitis; ss
                                                                                                                                                                                    , to
                                                                                                                                                                                              develop products for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1010
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                                                                            diseases,
ses, tumor
                                                                                                     molecules
                                                               diseases
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Matches

Local Similarity

Conservative

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100.0%;

Pred. No. 9.9e-105; Mismatches

0;

Indels

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Gaps

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ARESULT 12
AAZ27936/c
ID AAZ279
AC A
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      Best Loc
Matches
                                                                                                                                 Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                      The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, catts, cattle, sheep or pets. The products can also be used for detection,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; feline;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sim G,
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17-APR-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New isolated B7 and CTLA4 nucleic acids, used treating, e.g. autoimmune and atopic diseases % \left( 1\right) =\left\{ 1\right\} =\left\{ 1\right\}
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      Local Similarity
mes 227; Conser
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44.6%;
llarity 100.0%;
Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
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98US-0062597
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DNA;
                                                                                                                                                                                                                                                                                                                                                                                screening
                                                                                                                                                                                                                                                     A; 69 C;
Score 227; DE; Pred. No. 9.9
            0;
                                                                                                                                                                                                                                                           79
                                                                                                                                                                                                                                                     G; 128 T; 0 other;
                                                                                                                                 DB 20;
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                                                                .9e-105;
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            0;
            Indels
      0;
      Gaps
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Вþ Qy

801

AACACTAAGGAAAAGGAAGAAGAAGCAGCCTGGCCCCTCTCATGAATGTGAAACCA 382

AACACTAAGGAAAAGGAAGAAGAAGCAGCCTGGCCCCTCTCATGAATGTGAAACCA

856

Matches Query Match Best Local

Similarity

score 56; DB
; Pred. No. 3.5
0; Mismatches

5e-18

Length 987; Indels

0;

Gaps

0;

Conservative

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Вþ
                                                                                                The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            allergic reaction;
graft rejection; ir
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        B7; CTLA4; T cell costimulatory protein; dog; cat; autoim allergic reaction; infectious disease; tumor development;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Canine B7-2 protein coding sequence
                                                                                                                                                                                                                                                                                                                                            Sim G, Yang S,
                                                                                                                                                                                                                                                                                                                                                                                                                                               19-MAR-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAZ27915;
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                                                                                                                                                                                                                               Claim 1; Page 102-103; 148pp; English.
                                                                                                                                                                                                                                                        New isolated B7 and CTLA4 nucleic acids, used to develop products treating, e.g. autoimmune and atopic diseases \cdot
                                                                                                                                                                                                                                                                                                    P-PSDB;
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                                                                                                                                                                                                                                                                                                                                                                                                    19-MAR-1998;
17-APR-1998;
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                                                         Sequence 987
                                                                                    diagnosis and drug screening.
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DB; AAY41076.
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                                                         BP; 315 A;
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98US-0062597.
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                                                                                                                                                                                                                                                                                                                                             Sellins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            inflammation; arthritis; atopic dermatitis;
11.0%; >c
100.0%; Pr
                                                           215 C;
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                                                         204 G;
                                                           253 T; 0 other;
                 DB 20;
3.5e-18
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cat; autoimmune disease;
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RESULT 14
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Best Local
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                                                                                              B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune allergic reaction; infectious disease; tumor development; cani
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection, dispansed as a deficiency of the companies of the co
   Canis
                                                                    graft.
                                                                                                                                                                                                            Canine B7-2 protein encoding
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1; Page 103-104; 148pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               treating,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (HESK-) HESKA CORP.
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17-APR-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AAZ27916;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAZ27916 standard; DNA; 987
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 isolated B7 and CTLA4 nucleic acids, used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AACACTAAGGAAAAGGAAGAAGAAGCAGCCTGGCCCCTCTCATGAATGTGAAACCA 132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AACACTAAGGAAAAGGAAGAAGAAGCAGCCTGGCCCCTCTCATGAATGTGAAACCA 382
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tamiliaris
                                                                    rejection;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               e.g. autoimmune and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Ś
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98US-0078765.
98US-0062597.
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                                                            inflammation; arthritis; atopic dermatitis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              253 A; 204 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sellins
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ВP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          215 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              315 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          DB 20; I
. 3.5e-18;
ches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      , to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 987;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             develop products
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                                                                                                                                    disease;
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Best Local S
Matches 56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              graft rejection; inflammation; arthritis; atopic dermatitis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or tracting diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graff rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune allergic reaction; infectious disease; tumor development; cani
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Canine B7-2 gene complementary DNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 1897 BP; 585 A; 400 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 1; Page 97-99; 148pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New isolated B7 and CTLA4 nucleic acids, used treating, e.g. autoimmune and atopic diseases % \left( 1\right) =\left\{ 1\right\} 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        P-PSDB; AAY41076
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sim G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19-MAR-1998;
17-APR-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   and drug screening.
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98US-0062597.
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                                                                  Sellins
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100.0%;
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Pred. No.
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3.5e-18;
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RESULT 17
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                                              The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs,
                                                                                                                                                                                                                                                                                                                                  New isolated B7 and CTLA4 nucleic acids, used treating, e.g. autoimmune and atopic diseases {\bf r}
                                                                                                                                                                                                                                                                                Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                         P-PSDB; AAY41078
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17-APR-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (HESK-) HESKA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19-MAR-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; ergic reaction; infectious disease; tumor development; canine; ft rejection; inflammation; arthritis; atopic dermatitis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                   1999-571822/48
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                           Page 114; 148pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1897 BP; 529 A; 383 C; 400 G;
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98US-0062597
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                                                                                                                                                                                                                                                                              English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 56;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 20; I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        585 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           to develop products for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0,
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cats,

cattle

sheep or pets. The products can also be used for detection drug screening.

AA227921 standard; DNA; 1795

for

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В
AAZ27921
            RESULT 19
                                                                       QΥ
                                                                                                                                                 Db
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                                                                                                 Matches
                                                                                                            Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local
                                                                                                                                                                                The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection, diseases atopic dermatitis.
                                                                                                                                                                                                                                                                                                                                                                                     Sim
                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                     19-MAR-1998;
17-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   23-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Canis familiaris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          graft rejection; inflammation; arthritis; atopic dermatitis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      allergic reaction;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Complementary strand of canine B7-2S coding sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    20-DEC-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                      treating, e.g. autoimmune
                                                                                                                                                                                                                                                                                                                                   New isolated B7 and CTLA4 nucleic acids, used to
                                                                                                                                                                                                                                                                                                                                                             WPI; 1999-571822/48
                                                                                                                                                                                                                                                                                                                                                                                                             (HESK-) HESKA CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19-MAR-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAZ27924;
                                               540 TACTAAGTATGATACTGTCATGAAGAAATCTCAAAATAATGT 581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local Similarity hes 42; Conserv
                                                                                               Local Similarity nes 42; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CTLA4; T cell costimulatory protein; dog; cat; autoimmergic reaction; infectious disease; tumor development;
                                                                                                                                                 840 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 840 BP;
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ilarity 100.0%;
Conservative
                                                                                                 Conservative
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                                                                                                                                                                       drug
                                                                                                                                                                                                                                                                                               115; 148pp;
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98US-0062597.
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                                                                                                                                               214 A; 167 C; 181 G; 278 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                     Sellins
                                                                                                                                                                        screening.
                                                                                                            100.0%;
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                                                                                                                        8.3%;
                                                                                                                                                                                                                                                                                              English.
                                                                                                                                                                                                                                                                                                                        and atopic
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                                                                                                            Score 42;
Pred. No.
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Pred. No.
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                                                                                                                                                                                                                                                                                                                         diseases
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                                                                                                            4.3e-11;
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                                                                                                 0;
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                                                                                                                        Length 840,
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RESULT 20
AAZ27922/c
ID AAZ27922 standard; DNA; 1795 BE
XX
AC AAZ27922;
XX
DT 20-DEC-1999 (first entry)
XX
Canine B7-2S gene complementary
XX
B7; CTLA4; T cell costimulatory
XW
allergic reaction; infectious c
XW
graft rejection; inflammation;
XX
PM
Canis familiaris.
XX
PM
WO: 7558-A2.
XX
23-SE.
99.
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Best Local S
Matches 42
                                                                                       B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; canine;
                                                                                                                                                                                                                                                                                                                                                                                                                      development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, catts, cattle, sheep or pets. The products can also be used for detection,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; canine; graft rejection; inflammation; arthritis; atopic dermatitis; ss.
                                                                            graft rejection; inflammation; arthritis; atopic dermatitis;
                                                                                                                                                                                                                                                                                                                                                                                  Sequence 1795 BP; 592 A; 366 C; 347 G; 490 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                             diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                             encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 1; Page 109-111; 148pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New isolated B7 and CTLA4 nucleic acids, used treating, e.g. autoimmune and atopic diseases {\bf r}_{\rm c}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sim
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17-APR-1998;
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                                                                                                                                                                                                                                                                              546 TACTAAGTATGATACTGTCATGAAGAAATCTCAAAATAATGT 587
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              invention provides B7 and CTLA4 (T cell costimulatory proteins)
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                                                                                                                                                                                                                                                                                                                                 1 Similarity 42; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Yang
                                                                                                                                                                                                                                                                                                                                                                                                          and drug screening.
                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                gene complementary DNA sequence.
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98US-0062597
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                                                                                                                                                                                                                                                                                                                              8.3%; Score 42;
100.0%; Pred. No.
tive 0; Mismatc
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                                                                                                                                                                                                              ВP
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4.3e-11;
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                                                                                                                                                                                                                                                                                                                                                        Length 1795;
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                                                                                                                                                                                                                                                                                                                                Indels
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Matches
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cattle, sheep or pets. The products can also be used for detection,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1250 TACTAAGTATGATACTGTCATGAAGAAATCTCAAAATAATGT 1209
                P-PSDB; AAY95321
                            WPI; 2000-442537/38
                                                         Lechler RI,
                                                                                    (MLML-) ML LAB
                                                                                                                 19-DEC-1998;
23-OCT-1999;
                                                                                                                                                            17-DEC-1999;
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                                                                                                                                                                                                                       WO200037102-A2.
                                                                                                                                                                                                                                                                                                             Sus scrofa
                                                                                                                                                                                                                                                                                                                                        xerotransplantation; organ transplant;
                                                                                                                                                                                                                                                                                                                                                   Co-stimulatory molecule; CD86; B7-2; pig; immunosuppressive;
                                                                                                                                                                                                                                                                                                                                                                                   Pig costimulatory molecule CD86 (B7-2) cDNA
                                                                                                                                                                                                                                                                                                                                                                                                                25-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                           AAA49661;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 1; Page 112-114; 148pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               treating,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 1999-571822/48
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17-APR-1998;
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42; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Yang S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      standard; cDNA; 1050
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8.3%;
ilarity 100.0%;
Conservative
                                                      Rogers
                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                      PLC.
                                                                                                                 98GB-0027921
99GB-0025015
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98US-0062597
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                                                                                                                                                                                                                                                                 Location/Qualifiers 36..1013
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       screening.
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                                                        Dorling
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                        vaccine;
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4.3e-11;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                             Fruit fly; Vigilance protein; gene therapy; vigilance modulated gene; Fatty acid synthase; Fas; Cytochrome oxidase C subunit I; Bip; Cyp4e2; cytochrome p450; arylalkylamine N-acetyl transferase; Dat; parasomnia; hypersomnia; nacrolepsy; sleepwalking disorder; restless leg syndrome; vigilance disorder; insomnia; sleep apnea; fatal familial insomnia; ds
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LT 22
7297/c
                                                                                                                                                                24-NOV-1999;
08-DEC-1999;
                                                                                                                                                                                                                                             31-MAY-2001
                                                                                                                                                                                                                                                                            WO200138581-A2
                                                                                                                                                                                                                                                                                                        Drosophila melanogaster
                                                                                                                                     (NEUR-) NEUROSCIENCES
                                                                                                                                                                                                             22-NOV-2000; 2000WO-US32180
                                                                                                                                                                                                                                                                                                                                                                                                                         Drosophila melanogaster vigilance nucleic acid molecule
                                                                                                                                                                                                                                                                                                                                                                                                                                                              10-AUG-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAD07297 standard; DNA; 505 BP
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            invertebrate,
                            invertebrate with
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Novel methods for improving tolerance to a xenograft comprising immunizing a mammal with a T-cell epitope and a B-cell epitope
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                                                                        2001-367709/38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AACACTAAGGAAAAGAAGAAGCAGCCTGGCCCCTCT
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                                                                                                      é
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             40;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Similarity
                                                                                                      Cirelli C,
   compounds that alter vigilance, involves contacting e with candidate compound, evaluating vigilance property e, and determining if the compound alters vigilance in e -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       BP; 305 A;
                                                                                                                                                                  99US-0449175
99US-0456785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%;
                                                                                                                                     RES FOUND
                                                                                                     Shaw PJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       260 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 40;
Pred. No.
                                                                                                                                     INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       227 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                     Greenspan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       258 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4.4e-10;
                                                                                                      잗
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                863
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1050;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                            #4
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RESULT 23
AAZ27949.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          The invention relates to methods for identifying a compound that alters CC the vigilance property e.g., behavioural property, activity, latency to Sleep, arousal threshold, molecular property, and expression of one or CC more vigilance modulated genes selected from the group consisting of CF Fatty acid synthase (Fas), Cytochrome oxidase C subunit I, Cytochrome (CYp462), Bip, and arylakylamine N-acetyl transferase (Dat), in CF invertebrates such as an insect e.g., Drosophila melanogaster. CC The identified compound is useful for ameliorating a vigilance disorder, CC and modulating vigilance level in an individual. Vigilance disorder, CC include various forms of insomnia, hypersomnia, nacrolepsy, parasomnia, CC sleepwalking disorder, sleep apnea, restless legs syndrome and fatal CC familial insomnia. Vigilance nucleic acid molecules are useful in gene CC primers to identify larger vigilance cDNAs or genomic DNA. The present CC DNA sequence is Drosophila melanogaster vigilance nucleic acid molecules coded molecule of the invention which is upregulated during wake state.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 21
                                                                                                                                                                                                                                                                                                                                                                B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; PCR primer;
                                                                                                                                                    Sim
                                                             Example
                                                                                    treating, e.g. autoimmune
                                                                                                                           WPI; 1999-571822/48
                                                                                                                                                                                                      17-APR-1998;
                                                                                                                                                                                                                  19-MAR-1998;
                                                                                                                                                                                                                                                                     23-SEP-1999
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                                                                                                                                                                                                                                                                                                                     Felis catus
                                                                                                                                                                                                                                                                                                                                   Synthetic
                                                                                                                                                                                                                                                                                                                                                          graft rejection;
                                                                                                                                                                                                                                                                                                                                                                                                          Feline B7-2 gene specific sense
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                                                                                                                                                                             (HESK-)
                                                                                                                                                                                                                                            19-MAR-1999;
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                                                             6;
                                                                                                                                                   Yang S,
                                                                                                                                                                           HESKA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     standard; DNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Page 107; 111pp; English.
                                                            Page
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
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                                                                                                 в7
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                                                                                                                                                                                                                                          99WO-US06187
                                                           62; 148pp;
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                                                                                                                                                   Sellins
                                                                                                                                                                                                                                                                                                                                                       inflammation; arthritis; atopic dermatitis;
                                                                                                CTLA4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; 98 C; 69 G; 184 T; 3 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               4.1%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20
                                                                                                                                                   κs
                                                                                                nucleic acids,
                                                                                    and atopic
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                                                            English
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                          primer.
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                                                                                   diseases
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                                                                                               develop products
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The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can expressed by standard recombinant methodology. The nucleic acid molec and the encoded proteins can be used for preventing or treating disea

preventing

diseases

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ARESULT 24
AAZ27950/c
ID AAZ279
XX AAZ279
AC A
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Best Local
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                                                                                                                                                       Query Match
                                                                                                      Matches
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Felis catu
                                                                                                                                                                                                                                                                                                                                                              The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, and the encoded proteins can be used for preventing or treating diseases, tumor e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor e.g. autoimmune diseases, allergic reactions.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; PCR primer; graft rejection; inflammation; arthritis; atopic dermatitis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection,
                                                                                                                                                                                                                                                                                 development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sim G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    19-MAR-1998;
17-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Feline
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New isolated B7 and CTLA4 nucleic acids, used to develop products treating, e.g. autoimmune and atopic diseases \dot{}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (HESK-) HESKA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  19-MAR-1999;
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                                                                                                                                                                                                      Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example
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                                                                                                                              тосат
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                                                 GCGACAAAAGTACTACACA 509
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                                                                                                                            Similarity
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                                                                                                                                                                                                                                                             and drug
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Page 62; 148pp; English.
                                                                                                                                                                                                            BP;
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                                                                                                      Conservative
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98US-0062597.
                                                                                                                                                                                                         2 ·A;
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Pred. No.
                                                                                                                              Score 20;
Pred. No.
                                                                                                                                                                                                              9
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Nucleotide sequence of a rat xylosylytransferase (XT) isoform XT-I.

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RESULT 25
AAH88072
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                                                                                                AAH42341
                                                                                                             RESULT
                                                                                                                                                                                                 Matches
                                                                                                                                                                                                             Query Match
Best Local
                                                                                                                                                                                                                                                                                             The invention relates to nucleic acid molecules (AAH87645-AAH88116) that correspond to all or part of a mRNA molecule expressed in plant oil gland cells, especially peppermint and plant oil glands that produce terpenoid essential oils and resins. The nucleic acids are useful for genetically mapping a plant genome for genes expressed in plant oil gland cells and to suppress (for example by antisense suppression) or enhance their expression (for example by genetically transforming a plant cell with a replicable expression vector that expresses one or more proteins naturally expressed in plant oil gland cells). The nucleic acids are also useful for recombinant expression of plant oil gland proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Peppermint; plant oil gland cell; terpenoid essential oil; resin; genetic mapping; antisense suppression; recombinant expression; s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Peppermint plant oil
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                                                                                                                                                                                                                                                Sequence 341 BP; 117
                                                                                                                                                                                                                                                                        and/or yeast
                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              proteins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       peppermint oil glands
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New nucleic acid molecules corresponding to mRNA molecules expressed in peppermint oil glands for enhancing expression of plant oil gland cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Croteau RB,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (CROT/) CROTEAU R B. (LANG/) LANGE B M. (WILD/) WILDUNG M R.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             20-JAN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     19-JAN-2001; 2001WO-US02567.
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                                    17-SEP-2001
                                                             AAH42341;
                                                                                    AAH42341 standard; DNA; 2463
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19; Conser
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Conservative
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                                                                                                                                                                                                                                                                                    terpenoid essential
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Perfect score:
Sequence:
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                 709820 seqs, 544064369 residues
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Sequence 31, Appl
Sequence 31, Appl
Sequence 2030, Ap
Sequence 2030, Ap
Sequence 2030, Ap
Sequence 2030, Ap
Sequence 5, Appl
Sequence 5, Appl
Sequence 722, Appl
Sequence 11, Appl
Sequence 11, Appl
Sequence 33, Appl
Sequence 35, Appl
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9 US-09-962-969-24
11 US-09-962-969-24
10 US-09-962-965-56
10 US-09-962-326-56
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19 US-09-887-701-922-2
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Sequence 3, Appli Sequence 22, Appli Sequence 24, Appl Sequence 366, App Sequence 569, App Sequence 11, Appli Sequence 11, Appli Sequence 11, Appli Sequence 2036, App Sequence 2036, App Sequence 2036, Appli Sequence 17534, Appli Sequence 17534, Appli Sequence 17534, Appli Sequence 1753, Appli Sequence 1753, Appli Sequence 100, Appli Sequence 101, Appli Sequence 14537, Appli Sequence 21750, Appli Sequence 1750, App Sequence 1750, Appli Sequence 17
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Sequence 5, Application US/09303510A

Patent No. US20020028208A1

GENERAL INFORMATION:
APPLICANT: COllisson, Ellen W.
APPLICANT: Hash, Stephen M.

APPLICANT: Choi, InSoo

TITLE OF INVENTION: Feline CD80, Feline CD86, Feline CD28, and Feline
TITLE OF INVENTION: CTLA-4 Nucleic Acid and Polypeptides

FILE REFERENCE: 54954

CURRENT APPLICATION NUMBER: US/09/303,510A

CURRENT FILING DATE: 1999-04-30

EARLIER FILING DATE: 1999-05-01

NUMBER OF SEQ ID NOS: 83

SOFTWARE: Patentin Ver. 2.1
                                                                                                                                                                                                                                                                                                                                                                       ; TYPE: DNA
; ORGANISM: Feline
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                                         CCCTCTCATGAATGTGAAACCATCAAAAGGGAGAGAAAAGAGAGCAAACAGACCAACGAA
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0 US-09-960-352-7603

0 US-09-960-352-4477

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US-10-092-154-1353

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Sequence 6079, Ap
Sequence 3125, Ap
Sequence 7603, Ap
Sequence 4477, Ap
Sequence 35000, A
Sequence 1353, Ap
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APPLICANT: Winslow, Barbara J.

APPLICANT: Cochran, Mark D.

APPLICANT: Cochran, Mark D.

TITLE OF INVENTION: Recombinant Virus Expressing Foreign DNA Encoding TITLE OF INVENTION: Feline CD80, Feline CD86, Feline CD28, Feline CTLA TITLE OF INVENTION: Feline Interferon-gama And Uses Thereof FILE REFERENCE: 54957-B

CURRENT APPLICATION NUMBER: US/09/303,040

CURRENT FILING DATE: 1999-04-30

EARLIER APPLICATION NUMBER: 60/083,870

EARLIER FILING DATE: 1998-05-01

NUMBER OF SEQ ID NOS: 82

SOFTWARE: Patentin Ver. 2.0
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Patent No. US20020042054A1
GENERAL INFORMATION:
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Patent No. US20020051792A1
APPLICANT: Tononi, Giulio
APPLICANT: Cirelli, Chiara
APPLICANT: Shaw, Paul J.
APPLICANT: Greenspan, Ralph J.
TITLE OF INVENTION: Vigilance N
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TYPE: DNA
ORGANISM: feline
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AV808840 AV808840

AV808840 AV808840

AZ35242 RPC1-23-7

AZ496704 1M0333F13

AV800142 AV800142

AV810683 AV810683

AV810683 AV810683

AV810683 AV810683

AV810294

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AG146101 Pan troq1

BM922472 AGENCOURT

AW034773 EST2788899

BG628176 CC-esf1c1

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BI402787 MI-P-CP1

AZ046631 hbeb0092M

AQ315914 RPC111-12

BG42786 7198 GB8001.x

BG45798 GB8001.x

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BG116239 602318475

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BF037606 601461178

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BG300450 F192565

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AW01784 AU01783

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`AACACTAAGGAAAAGGAAGAAGCAGCCTGGCCCCTCT 366
                   40;
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Tuggle,C.K., Wahls,S. and Schmitz,C.
Expressed Sequence Tags from Pig Spleen
                                                                                                                                                                                                                                                                                                                                                               AA056905 mRNA linear EST 18-SEP-1
EST7224F Pig Spleen lambda gt 11 Library (Clontech Cat # PL1006b)
Sus scrofa cDNA clone SPL224 forward similar to L25259 CTLA4
                                                                                                                                                                                                                                                                                                                                                                                                                                                       BACKWARD: GACCGGCGCTCAGCT
Insert Length: 950 Std Err
Seq primer: TGGCGACGACTCCTG
                                                                                                                                                                                                                                                                                                                                  EST
                                                                                                                                                                                                                                           Contact: Tuggle CK Molecular Genetics Laboratory, Department of Animal Science
                                                                                                                                                                                                                                                                                                                 Sus scrofa
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AA056905.1 GI:1549545
                                                                                                                                                                                                                                                                                                                                                         counter-receptor , human,
                                                                                                                                                                                    FORWARD: TGGCGACGACTCCTG
                                                                                                                                                                                            PCR PRimers
                                                                                                                                                                                                                            Iowa State University
201 Kildee Hall, Ames, IA 50011-3150, USA
                                                                                                                                                                                                                                                               Unpublished (1996)
                                                              125
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                   Conservative 0;
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                                                             a
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106 c 114 g 163
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HS_5387_B
7 SP_1031_A
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5 SP_0134_A
601451829
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Class: BAC ends
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Email: szhaottigr.org
Email: szhaottigr.org
Email: szhaottigr.org
Clones are derived from the mouse BAC library RPCI-23. For BAC
Clones are derived from the mouse BAC library RPCI-23. For BAC
Clones are derived from the mouse bac contact Pieter de Jong
(pieterdedjong.med.buftalo.edu). Clones may be purchased from
BACPAC Resources (http://bacpac.med.buffalo.edu/orderingframe.htm)
or from Resea ch Genetics (info@resgen.com). BAC end page:
http://www.tigr.org/tdb/bac_ends/mouse/bac_end_intro.html
Plate: 1 row: G column: 3
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Mouse BAC End Sequences from Library RPCI-23 Unpublished (1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       9712 Medical Center Dr., Rockville,
Tel: 301 838 0200
Fax: 301 838 0208
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Contact: Shaying Zhao
Department of Eukaryotic Genomics
The Institute for Genomic Research
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Other_GSSs: RPCI-23-1G3.TJ
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1 (bases 1 to 167)
                                                                                                                                                                                                                                                                  Conservative
303 bp mRNA linear Arabidopsis thaliana flower buds Columbia cDNA clone FB006d1lf 3', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                        /note-"Organ: Kidney/Brain; Vector: pBACe3.6; Site_1: EcoRI; Site_2: EcoRI; Female C57BL/6J mouse kidney and/or brain genomic DNA was isolated and partially digested with a combination of EcoRI and EcoRI wethylase. Size selected DNA was cloned into the pBACe3.6 vector at the EcoRI sites. The ligation products were transformed into DH10B electrocompetent cells (BRL Life Technologies). "
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /strain="C57BL/6J"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /lab_host="DH10B"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /organism="Mus musculus"
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Eutheria; Rodentia;
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Tsegaye,G., Geer,K.,
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GenCore version 5.1.4\_p5\_4578 Copyright (c) 1993 - 2003 Compugen Ltd.

OM nucleic nucleic search, using sw model

Title:

Run on:

April 22,

2003, 16:45:55; Search time 24.4088 Seconds (without alignments) 6395.163 Million cell updates/sec

Perfect score: Sequence: US-09-646-561-30 509 1 atacaaggttaccc atacaaggttacccagaacc... .....ggcgacaaaagtactacaca

Scoring table: OLIGO\_NUC Gapop 60.0 , Gapext 60.0

Searched: 441362 seqs, 153338381 residues

Word size

Total number of hits satisfying chosen parameters: 882724

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 100 summaries

Issued\_Patents\_NA:\* /cgn2\_6/ptodata/1/ina/5A\_COMB.seq:\*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

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US-08-450-562-23 US-08-984-709A-23	ဘာတ	œι	œα	8-921-177-20	œ	œ۰	ũ٠	Φ.	ū	ō.	æ,	<u>ت</u>	ဆိ	žο	50	50	žο	Ď ď	00-221-0175 (2	ĕ	9	9	æ	9	ŏ,	છે રે	ώũ	ρà	)8-928-442-2	)8-456-200B-16	)9-134-001C-	)9-328-111-538 )9-321-0178-57	)9-221-017B-	)9-051-969A-2	)9-328-111-2	מׁ מֿ	9	9-385-982-49	)9-370-838-17	)9-134-001C-	)9-750-580-1	2	ċ	ĕ	- a	6	3	8		2 2	200	)9-385-982-211	$\frac{1}{2}$	)8-585-684B-259	7 10	30	20	-US94-09642-1	$\sim$
Sequence 2	S NO	CIL	SN	N	N	Sequence 2	T NO	Sequence 9			Sequence 1						T apprehense											Sequence 1				Sequence 5				sequence 9		Sequence 4																					
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US-08-205-697A-31
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US-08-702-525-31
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                                                                                                                                      Sequence 31,
Patent No. 6
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELEPHONE: (617)227-7400
TELEFAX: (617)227-5941
INFORMATION FOR SEQ ID NO: 31:
                                                                                                                           GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER: US/08/205,697A FILING DATE: 02-Mar-1994 ATTORNEY/AGENT INFORMATION: NAME: Mandragouras, Amy E.
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SOFTWARE: ASCII Text
CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
LENGTH: 210 base pairs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      REFERENCE/DOCKET NUMBER: BW.
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)227-7400
TELEPEAX: (617)27-5941
TELEFEAX: (617)27-5941
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                               FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: No. 6218510el Forms of T Cell Costimulatory Molecules
                                                                       APPLICANT: Sharpe, Sharpe
APPLICANT: Borriello, Francescopaolo
APPLICANT: Freeman, Gordon
                                                                                                          APPLICANT:
                                                                                                                                                                                                                                     MOLECULE TYPE:
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                                                                                                                                                                                                                                                                                                               Local Similarity 100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NAME: Mandragouras, Amy E. REGISTRATION NUMBER: 36,207
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         OF INVENTION:
OF SEQUENCES:
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                                                                                                                                                         Application US/08702525
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1..183
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                          No. 6294660el Forms of T Cell Costimulatory Molecules and Uses Therefor
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PCT-US95-02576-31
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TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)227-7400
TELEPAX: (617)227-5941
INFORMATION FOR SEQ ID NO: 31:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 31, Application PC/TUS9502576 GENERAL INFORMATION:
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Best Local Similarity 100.
Matches 18; Conservative
                                                                                                                                                                                                                                                                                           COMPUTER READABLE FORM:
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: ASCII Text
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US95/02576
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SOFTWARE: ASCII Text
CURRENT APPLICATION DATA:
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/205,697
FILING DATE: 02-MBI-1994
ATTORNEY/AGENT INFORMATION:
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LOCATION:
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IBM PC compatible
SYSTEM: PC-DOS/MS-DOS
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Mandragouras, Amy E.

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Choi,I.S., Hash,S.M., Winslow,B.J. and Collisson,E.W.
Sequence analyses of feline B7 costimulatory molecules
Vet. Immunol. Immunopathol. 73 (3-4), 219-231 (2000)
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                                                                                                                                                                                                        Direct Submission
Submitted (31-UUL-1999) Yorihiro Nishimura, Faculty of Agriculture,
Submitted (31-UUL-1999) Yorihiro Nishimura, Faculty of Agriculture,
The University of Tokyo, Department of Veterinary Microbiology;
1-1-1 Yayoi, Bunkyo-ku, Tokyo 113-8657, Japan
(E-mail:yorihiro@crocus.com.ne.jp, Tel:+81-3-5841-5396,
Fax:+81-3-5841-8184)
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/protein_id="BAB11688.1"
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                                                                                                                                                                                           updated (08-Jun-2000).
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CALKLETLEMLLSLPFNIDAGPKRDKDFDGGHFLMIAAVLVMFVVFCGMVSFKTLRKRK
KKQPGPSHECETIKRERKESKOTHRERVPYHVPERSDEAQCVNILKTASGDKNQ"
a 245 c 246 g 289 t
                                                                /gene="CD86"
240. .1238
                                                                                                            /cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                /translation="MGICDSTMGLSHTLLVMALLLSGVSSMKSQAYFNKTGELPCHFTNSQNISLDELVVFWQDQDKLVLYEIFRGKENPQNVHLKYKGRTSFDKDNWTLRLHNVQIKDKGTYHCFTHYKGFKGLVFWHQMSSDLSVLANFSQFEITVTSNRTENSGIINLTCS
                                                                                                                              /organism="Felis catus"
/db_xref="taxon:9685"
                                                                                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /protein_id="AAD42974.1"
/db_xref="GI:5381424"
                                                                                             err_type="peripheral blood .1270"
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Pred. No.
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blood mononuclear
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ologues which
                  B7-2 (CD86)"
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Felis.
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B7-2 (CD86),
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RESULT 3
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AY007704
                                                                                                                                                                                                                                                                   Prospect
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata; Craniata; Vertebrata;
Mammalia; Eutheria; Carnivora; Fissipedia; Felidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Felis catus
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SIQGYPEPKEMYFQLNTENSTTKYDTVMKKSQNNVTELYNVSISLPFSVPEAHNVSVF
CALKLETLEMLLSLPFNIDAQPKDKDPEQGHFLWIAAVLVMFVVFCGMVSFKTLRKRK
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Parkway, Ft Collins, CO 80525, USA
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NSQNISLDELVVFWQDQDKLVLYEIFRGKENPQNVHLKYKGRTSFDKDNWTLRLHNVQ
         /protein_id="AAG23342.1"
/db_xref="GI:15418726"
/db_xref="GI:15418726"
/translation="MGICDSTMGLSHTLLVMALLLSGVSSMKSQAYFNKTGELPCHFT
/translation="MGICDSTMSLSHTLLVMALLLSGVSSMKSQAYFNKTGELPCHFT
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IKDKGTYHCFIHYKGPKGLVPMHQMSSDLSVLANFSQPEITVTSNRTENSGIINLTCS
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179. .1177
SIQGYPEPKEMYFQLNTENSTTKYDTVMKKSQNNVTELYNVSISLPFSVPEAHNVSVF
                                                                                        /product="CD86"
                                                                                                          /codon_start=1
                                                                                                                       /note="CD28/CTLA4 counter receptor;
                                                                                                                                        /gene="CD86"
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                                                                                                                                                                                                                       organism="Felis catus"
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Eukaryota;
                                                                                                                                                                                                                                                                                                                                                                     Submitted (16-NOV-1998) Basic Immunology, Heska Sharp Point Drive, Fort Collins, CO 80525, USA
                                                                                                                                                                                                                                                                                                                                                                                                   2 (bases 1 to 1795)
Yang, S. and Sim, G.-K.
Direct Submission
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Yang, S. and Sim, G.K.
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3 570 c 586 g 797 t
                                        /translation="MYLRCTMELNNILPVMTLLLYGAASMKSQAYFNKTGELPCHFTN
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KDKGLYQCFVHKGPKGLVPMHOMNSDLSVLANFSQDEJMVTSNTENSGIINLTCSS
IQGYPEPKEMYFLVKTENSSTKYDTVMKKSQNNVTELYNVSISLSFSVPEASNVSIFC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              CALKLETLEMLLSLPFNIDAQPKDKDPEQGHFLWIAAVLVMFVVFCGMVSFKTLRKRK
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/protein_id="AAF17298.1"
/db_xref="G1:6572519"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               of dog
                                                                                                                                                     /codon_start=1
                                                                                                                                                                   /note="lacks transmembrane domain;
                                                                                                                                                                                                /gene="CD86"
                                                                                                                                                                                                                               'gene="CD86"
                                                                                                                                                                                                                                                            'gene="CD86"
                                                                                                                                                                                                                                                                                                          'db_xref="taxon:9615"
                                                                                                                                                                                                                                                                                                                           organism="Canis familiaris"
                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
                                                                                                                                                                                   function="counter-receptor"
                                                                                                                                                                                                                                                                                             'cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GI:6572518
                                                                                                                                                                                                                                                                              ell_type="peripheral
.1795
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protein (CD86) mRNA,
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                                                                                                                                                                                   for CD28 and CD152 (CTLA4)"
                                                                                                                                                                                                                                                                                             mononuclear
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Best Local :
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                                               546 TACTAAGTATGATACTGTCATGAAGAAATCTCAAAATAATGT 587
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2 (bases 1 to 1897)
Yang, S. and Sim,G.-K.
Direct Submission
Submitted (16-NOV-1998) Basic Immunology, Heska Corporaton, 1825
Sharp Point Drive, Fort Collins, CO 80525, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa; Chordata; Craniata; Ve
Mammalia; Eutheria; Carnivora; Fissipedia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AF106826 1897 k
Canis familiaris B7-2 protein
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                                                                                                          Conservative
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                                                                                                                                                                                                                          PGPSHECETNKVERKESEQTKERVRYHETERSDEAQCVNISKTASGDNSTTQF
                                                                                                                                                                                                                                                      KDKGLYQCFVHHKGPKGLVPMHQMNSDLSVLANFSQPEIMVTSNRTENSGIINLTCSS
IQGYPEPKEMYFLVKTENSSTKYDTVMKKSQNNVTELYNVSISLSFSVPEASNVSIFC
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1 366 c
                                                                                                                                                                                             /gene="CD86"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Canis familiaris"
/db_xref="taxon:9615"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                          codon_start=1
                                                                                                                                                                                                                                                                                                                                                                        function="counter-receptor for CD28 and CD152 (CTLA4)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /cell
                                                                                                                                                                                                                                                                                                translation="MYLRCTMELNNILFVMTLLLYGAASMKSQAYFNKTGELPCHFTN"
                                                                                                                                                                                                                                                                                                                                                                                       'gene="CD86"
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                                                                                                                                                                                 400
                                                                                                                     11.7%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                              __type="peripheral blood mononuclear cells" 1897
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                                                                                                       0;
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                                                                                                                     Score 42; DB 4; L
Pred. No. 6.2e-12;
                                                                                                                                                                              383 g
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Pred. No.
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6.2e-12;
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Web site: http://www.hgsc.bcm.tmc.edu/Contact: hgsc-help@bcm.tmc.edu
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RESULT

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Davila, M.L., Davis, C., Davy-Carroll, D., Dederich, D. A.,
Delaney, K.R., Delgado, O., Denn, A.L., Dind, Y., Dinh, H.H.,
Douthwaite, K.J., Draper, H., Dugan-Rocha, S., Durbin, K.J.,
Falls, T., Ferraguto, D., Edwards, C.C., Elhaj, C., Escotto, M.,
Falls, T., Ferraguto, D., Edwards, C.C., Elhaj, C., Escotto, M.,
Gao, J., Gaoria, A., Forde, J., Foster, P., Frantz, P.,
Gabisi, A., Gao, J., Fag, N., Ford, J., Foster, P., Frantz, P.,
Gabisi, A., Gao, J., Fag, N., Forde, J., Foster, P., Frantz, P.,
Gabisi, A., Gao, J., Foster, T., Garza, N., Gill, R.,
Gorrell, J.H., Guevara, W., Gunaratne, P., Hale, S., Hamilton, K.,
Gorrell, J.H., Guevara, W., Gunaratne, P., Hale, S., Hamilton, K.,
Horling, J., Holloway, C., Holling, P., Hale, S., Hamilton, K.,
Horling, J., Holloway, C., Holling, P., Holloway, C., Holling, B.,
Hernandez, O., Hodgson, A., Holloway, C., Holling, B.,
Hernandez, O., Hodgson, A., Holloway, C., Holling, B.,
Kratovic, J., Kwarshi, A., Landry, N., Leal, B., Lewis, L.C., Lewis, L.,
Li, J., Li, Z., Lichtarge, O., Lieu, C., Liu, J., Liu, W., Loulseged, H.,
Lozado, R.J., Lu, X., Lucier, A., Martindale, A., Martinez, E.,
Mansey, E., Mawhiney, E., McLeod, M.P., Meador, M., Mei, G., Metzker, M.,
Massey, E., Mawhiney, E., McLeod, M.P., Meador, M., Mei, G., Metzker, M.,
Moyen, N., Nickerson, E., Nwokenkwo, S., Oguh, M., Okwuonu, G.,
Oragunye, N., Oviedo, R., Pace, A., Payton, B., Peery, J., Perez, L.,
Peters, L., Pickens, R., Primus, E., Pu, L.L., Quiles, M., Ren, Y.,
Rives, M., Rojas, A., Rojubokan, I., Rolfe, M., Ruiz, S., Savery, G.,
Scherr, S., Scott, G., Shen, H., Shooshtari, N., Sisson, I.,
Sundai, K., Vasquez, L., Vera, V., Villalon, D., Vinson, R., Wang, O.,
Walliamson, A., Wleczyk, R., Woden, S., Wariey, K.,
Wang, O., Walliamson, A., Wleczyk, R., Woden, S., Wariey, K.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Direct Submission
Submitted (17-FEB-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
3 (bases 1 to 98469)
                                                                                                                                                               of Molecular and Human Genetics, Baylor Baylor Plaza, Houston, TX 77030, USA On Jul 12, 2002 this sequence version re-
                                                                                                                                                                                                                                                                                                            Submitted (13-JUL-2002) Human Genome Sequencing of Molecular and Human Genetics, Baylor College
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Alsbrooks,S.L., Amaratunge,H.C., Are,J.R., Ayele,M., Banks,T. Barbaria,J., Benton,J., Bimage,K., Blankenburg,K., Bonnin,D. Bouck,J., Bowie,S., Brieva,M., Brown,E., Brown,M., Bryant,N. Buhay,C., Burch,P., Burkett,C., Burrell,K.L., Byrd,N.C., Carron,T.F., Carter,M., Cavazos,S.R., Chacko,J., Chavez,D., Chen,G., Chen,R., Chen,Z., Chowdhry,I., Christopoulos,C., Cleveland,C.D., Cox,C., Coyle,M.D., Dathorne,S.R., David,R., David,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Worley, K.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Worley, K.C.
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AC110476
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Muzny, D.M., Adams, C.,
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AC110936.4 GI:21738079
HTG; HTGS_PHASE1.
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Mammalia; Eutheria;
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Center: Baylor College of Medicine Center code: BCM
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J

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NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.html).

NOTE: This is a 'working draft' sequence. It currently consists of 51 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will be preserved.
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Chemistry: Dye-terminator Big Dye: 100% of reads
Assembly program: Phrap; version 0.990329
Consensus quality: 58747 bases at least Q40
Consensus quality: 62864 bases at least Q20
Consensus quality: 62864 bases at least Q20
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                         Rattus norvegicus clone CH230-89N15, ***, 78 unordered pieces.
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Rattus norvegicus
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Submitted (13-JUL-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted (19-FEB-2002) Human Genome Sequencing Center, Department of Molecular and Human Genetics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030, USA
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On Jul 12, 20
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Web site: http://www.hgsc.bcm.tmc.edu/Contact: hgsc-help@bcm.tmc.edu
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Center code: BCM
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NOTE: Estimated insert size may differ from sequence length (see http://www.hgsc.bcm.tmc.edu/docs/Genbank_draft_data.h NOTE: This is a 'working draft' sequence. It currently consists of 78 contigs. The true order of the pieces is not known and their order in this sequence record is arbitrary. Gaps between the contigs are represented as runs of N, but the exact sizes of the gaps are unknown. This record will be updated with the finished sequence as soon as it is available and the accession number will
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                                                                                                                                                                                                                                                                                                                                               Submitted (26-JUN-2002) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA On Jun 26, 2002 this sequence version replaced gi:21536113. All repeats were identified using RepeatMasker: Smit, A.F.A. & Green, P. (1996-1997)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (22-MAR-2002) Whitehead Institute/MIT Center for Genome Research, 320 Charles Street, Cambridge, MA 02141, USA 3 (bases 1 to 221789)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Theodore, J., Topham, K., Travers, M., Travis, N., Trigilio, J., Vassiliev, H., Viel, R., Vo, A., Wilson, B., Wu, X., Wyman, D., Ye, W.J., Young, C., Zainoun, J., Zembek, L., Zimmer, A. and Zody, M.
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                                                                                                Sequencing vector: Plasmid; n/a; 100% of reads Chemistry: Dye-terminator Big Dye; 100% of reads
                                                                                                                                                             Center project name: L24966
Center clone name: 72_G_22
                                                                                                                                                                                                                       Contact: sequence_submissions@genome.wi.mit.edu
                                                                                                                                                                                                                                              Web site: http://www-seq.wi.mit.edu
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1135 1234; gap of 100 bp
1235 3567; contig of 1248 bp in length
4916 5015; gap of 100 bp
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1105 838; contig of 1248 bp in length
4916 5015; gap of 100 bp
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1105 838; contig of 333 bp in length
4916 5015; gap of 100 bp
1105 838; contig of 3568 bp in length
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11159 15577; contig of 2575 bp in length
15578 15677; gap of 100 bp
11159 15577; contig of 4419 bp in length
15578 26269; contig of 4419 bp in length
16681 36780; gap of 100 bp
16881 36780; gap of 100 bp
173579 53678; contig of 1031 bp in length
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       of the gaps between them are based on estimates that have provided by the submittor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This sequence will be replaced
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Insert size: 220689; sum-of-contigs Quality coverage: 6.6 in Q20 bases; Quality coverage: 6.7 in Q20 bases;
        Conservative
                                                                                                      138473. .221789
/note="assembly_fragment"
41782 c 41323 g 67204 t
                                                                                                                                                                                                                                          53679
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/clone="RP24-72G22"
                                                                                                                                                                                                             /note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                   /note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note="assembly_fragment"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /clone_lib="RPCI-24 Male Mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /organism="Mus musculus"
                                                                                                                                                                          'note="assembly_fragment"
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6.1%; >\tau
100.0%; Pr
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                                                                                                                                                                                                                                                                                                                                                                                                              15577
                            Score 22; DB 2;
Pred. No. 0.51;
          Mismatches
      0;
                                                                                                               1102 others
                                             Length 221789;
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RESULT 10
BTA291475
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SOURCE
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AF222915
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                                                                                                                                                                             78 CATGAAGAATCTCAAAATAA 98
                                                                                                                                                     CATGAAGAAATCTCAAAATAA
                                   BTA291475 9

BOS taurus partial mRNA fo

AJ291475 GI:10803379

BJ-2; CD86 antigen; CD86 g
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Sus scrofa
exon 5 and
AF222915
                           COW.
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             Bos taurus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (11-JAN-2000) Department of Animal Nutrition, Breeding and Ethology, University of Ghent, Heidestraat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Van Poucke, M. and
Direct Submission
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa;
Mammalia; Eutheria;
1 (bases 1 to 133)
 Eukaryota;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Van Poucke, M.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sus scrofa
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                                                                                                                                                                                                                                                                   47
                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                  /number=5
                                                                                                                                                                                                                                                                                           <1. .>133
/gene="CD86"
                                                                                                                                                                                                                                                                                                                                            /codon_start=3
/product="costimulatory
/protein_id="AAG41128.1
/db_xref="GI:11890420"
                                                                                                                                                                                                                                                                                                                                                                                            /gene="CD86"
                                                                                                                                                                                                                                                                                                                                                                                                                    /product="costimulatory B-lymphocyte antigen
                                                                                                                                                                                                                                                                                                                                                                                                                                                         ∕gene="CD86"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /map="between
/note="breed:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Sus scrofa"
/db_xref="taxon:9823"
/chromosome="13"
                                                                                                                                                                                                                                                                                                                                 /translation="YPEPQRMYMLLNTKNSTTEHDADMKKSQNNITELYNVSIRVSLP
                                                                                                                                                                                                                                                                                                                                                                                                                                    /gene="CD86"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 133 DP DNA linear MAM 19-DEC-costimulatory B-lymphocyte antigen B7-2 (CD86) gene, partial cds.
Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GI:11890419
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                                                                                                                                                    91
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Pred. No.
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Belgian Landrace"
                                                                          924 bp
for CD86
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Sus.
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                                                                                                                                                                                                      0;
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19,
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Bovidae; Bovinae; Bos.
1 (bases 1 to 924)
Brooke, G.P., Howard, C.J. a
Cloning and distribution o
Unpublished
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Submitted (12-OCT-2000) Brooke G.P., Cellular Immunology, I For Animal Health, Compton, Berks, RG20 7NN, UNITED KINGDOM Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Brooke, G.P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Direct Submission
                                                                                                                                                                                                             Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleo:
Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.
1 (bases 1 to 994)
Maher, S.E., Karmann, K., Min, W., Hughes, C.C., Pober, J.S. and
                                                                                                                                    human T cells: cloning, sequencing, and human endothelial cells
J. Immunol. 157 (9), 3838-3844 (1996)
                                                                                                                                                                                                                                                                                Sus scrota
                                                                                                                                                                                                                                                                                                              L76099.1 GI:2198558 T cell costimulation.
                                                                                           GSDB:S:74002
                                                                                                                                                                                   Porcine endothelial CD86 is a major costimulator of
                                                                                                                                                                                                   Bothwell, A.L.
                                                                                                                                                                                                                                                                                               Sus scrofa.
                                                                                                                                                                                                                                                                                                                                             L76099
                                                                                                                                                                                                                                                                                                                                                          Sus scrofa CD86 mRNA,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /protein_id="CAC13140.1"
/db_xref="G:1080380"
/db_xref="G:1080380"
/ranslatjon="marrcymclrnilmgmalrlsvskvpesgaaslkshaffnetge
/translatjon="marrcymclrnilmgmalrlsvskvppesgaaslkshaffnetge
LPCHFPNTQNLSLDELVIEWODQNKLVLYELFKGQEKFNNVNPKYIGRTSFDQDSWTL
RLHNVQIKDTGSYQCF:HHRRSGGLVSIHQMSSDLIVLANFSQEPEIRLTANQTERSNI
INLTCSSIQVYPEPGRMYVSLMTTNSSSTYDAVMKKSQSNITELYNVSISVSPPIPBE
INLTLCSSIQVYPEPGRMYVSLMTNASSTYDAVMKKSQSNITELYNVSISVSPPIPBE
INVTIFCNIQLEPTKIILSQPYNIDAKSPYPSPPVPDHILMIAALLVTVVVVSGMVFLT
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72. .>924
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/dev_stage="adult"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /organism="Bos taurus"
/db_xref="taxon:9913"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /codon_start=1
/product="CD86 antigen"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /gene="CD86"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /cell_type="monocyte"
           /cell_line="PEC-A"
                               /db_xref="taxon:9823"
                                                                            Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                'function="Immune response"
/cell_type="endothelial"
                                            /organism="Sus scrofa"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 21;
Pred. No.
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                                                                                                                                                                                                                                                                                                                                                          complete
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                                                                                                                                                                                    xenogeneic
                                                                                                                                                                                                                                                Euteleostomi;
Sus.
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DEFINITION ACCESSION
                                            RESULT 13
AC099866
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ORIGIN
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                                                                                                                                        78 CATGAAGAAATCTCAAAATAA 98
                                                                                                            ALUPYODD 11 DNA linear HTG : Mus musculus clone RP23-7M22, LOW-PASS SEQUENCE SAMPLING AC099866
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 13 from Patent W00037102.
                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; 1 (bases 1 to 994)
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                                                                                                                                                                                                                                                                                                                                                               Immunosuppression
Patent: WO 0037102-A 13 29-JUN-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        pig.
Sus scrofa
                                                                                                                                                                                                                                                                                                                               ROGERS NICHOLA JANE (GB) ; DORLING ANTHONY (GB) ; ML LAB PLC (GB) ; LECHLER ROBERT IAN (GB)
                                                                                                                                                                                                                                                                                                                                                                                            Rogers, N.J., Dorling, A. and Lechler, R.I.
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QCFIHKGPHGLVPIHQMSSDLSLLANFSQPEILLTNHTENSVINLTCSSTQGYFB-

QRMYMLLNTKNSTTEHDADMKKSQNNITELYAVSIRVSLPIPDETNVSTVCVLQLEPS

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994
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hagos, B., Heaford, A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         will be sequenced to completion. In the event that the record is updated, the accession number will
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Contact: sequence_submissions@genome.wi.mit.edu
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                        4001: contig of 730 bp in length 2 4101: gap of 100 bp 2 4845: contig of 744 bp in length 5673: contig of 747 bp 100 bp 1
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Novel human polynu hyman colon tumour Human B-2 extrace Nucleotide sequenc DNA encoding CD86 Isoform 1911 of th B7-2 CDNA. Homo s Human co-stimulato Human B-2 cDNA. Home B lymphocyte Human B-2 cDNA. Brabidopsis thalia melanog Human consophila melanog Human CDNA differe Breast cancer rela Stomach cancer rela Stomach cancer in thalia Arabidopsis thalia Puman prostate spe Human foetal liver probe #10680 for ghuman foetal liver probe #1080 for gen Human bone marrow probe #1080 for gen Human cervical can human cervical can human foetal liver probe #750 used thuman bone marrow probe #750 for gen Human bone marrow probe #750 for gen Human bone marrow probe #750 used to probe #758 used #758 used to probe #758 used #758 used #758 used #758 used #758 used #758 used #758 us

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                                      development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection,
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Best Local Similarity

100.0%;

Pred. No. 4.1e-173;

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Вb

Query Match

Sequence

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ВP;

Α, 100.0%;

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Score 359;

DВ 0 other; 20;

Length 359;

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RESULT 2
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ID AAZ279
XX B7; CT
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KW B7; CT
KW G1lerg
KW G1lerg
KW G1lerg
KW G119-MAF
XX HESK-
YX 19-MAF
XX 119-MAF
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                   The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins cal expressed by standard recombinant methodology. The nucleic acid mole and the encoded proteins can be used for preventing or treating disease, autoimmune diseases, allergic reactions, infectious diseases, development, graft rejection, inflammation, arthritic and atopic diseases atopic dermatitis. They can be used in mammals such humans, cattle, sheep or pets. The products can also be used for determined to the control of the control of the cats, cattle, sheep or pets. The products can also be used for determined to the cats of the cats 
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Best Local
The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can expressed by standard recombinant methodology. The nucleic acid molec and the encoded proteins can be used for preventing or treating disea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; feline; graft rejection; inflammation; arthritis; atopic dermatitis; ss.
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                                                                                                                 125-126;
                                                                                                                                                                                                                                                                                                                                      CORP
                                                                                                                                                     7 and CTLA4 nucleic acids, used autoimmune and atopic diseases
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98US-0062597
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                                                                                                            148pp;
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                                                                                                              English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             G;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             4.1e-173;
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RESULT 4
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Best Local S
Matches 227
      The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammale such homeonets.
such
cats,
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                                                                                                                                                                                                                                                                                                                                                                                                                B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; feline; graft rejection; inflammation; arthritis; atopic dermatitis; ss.
                                                                                                                     Claim 1;
                                                                                                                                                                                                                  Sim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAZ27934 standard; DNA; 509
                                                                                                                                                 New isolated B7 and CTLA4 nucleic acids, used treating, e.g. autoimmune and atopic diseases
                                                                                                                                                                                         WPI; 1999-571822/48
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17-APR-1998;
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                                                                                                                                              treating, e.g. autoimmune
                                                                                                                                                                                                                                             (HESK-)
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227; Conser
                                                                                                                                                                                                                 Yang
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                                                                                                                   127; 148pp; English.
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98US-0062597.
                                                                                                                                                                                                                                                                                                             99WO-US06187.
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                                 development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection,
                                                                encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor
                                                                                                                                                                                                            WPI;
                     diaghosis
                                                                                                                  The
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17-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                         allergic reaction; graft rejection; ir
                                                                                                                                      Claim 1; Page 123-124; 148pp; English.
                                                                                                                                                             treating,
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                                                                                                                                                                                                                                   Sim G,
                                                                                                                                                                                                                                                        (HESK-)
                                                                                                                                                                                                                                                                                                                 19-MAR-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; ergic reaction; infectious disease; tumor development; feline; ift rejection; inflammation; arthritis; atopic dermatitis; ss.
                                                                                                               invention provides B7 and CTLA4 (T cell costimulatory proteins)
                                                                                                                                                             isolated B7 and CTLA4 ting, e.g. autoimmune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ACTAAGTATGATACTGTCATGAAGAAATCTCAAAATAATGTGACAGAACTGTACAACGTT
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98US-0062597
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                        screening
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100.0%;
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                                                                                                                                                             nucleic acids, used and atopic diseases
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Pred. No.
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other;

Query Match Best Local

Matches

al Similarity 227; Conserv

63.2%; ilarity 100.0%; Conservative

Score 227; DB 20; Pred. No. 9.1e-106;

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RESULT 6
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B7; CTLA4; T cell co
KW allergic reaction; in
KW graft rejection; inf
XX
OS Felis catus.
YX
PD 23-SEP-1999; 99WO-
XX
PD 23-SEP-1999; 98US-
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PD 23-SEP-1998; 98US-
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PF 19-MAR-1998; 98US-
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PF 19-MAR-1998; 98US-
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PF 19-MAR-1998; 98US-
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PF 17-APR-1998; 98US-
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PF 18-MAR-1999; 99WO-
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Best Local s
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                                                                                                                                                                                                                                                                         e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    New isolated B7 and CTLA4 nucleic acids, used treating, e.g. autoimmune and atopic diseases % \left( 1\right) =\left( 1\right) +\left( 1\right)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; feline;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    and the encoded proteins can be used for preventing or treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Complementary strand of feline B7-2 coding sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  664
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Page 124-125; 148pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
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                                                                                                                                                  sheep or pets.
drug screening.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98US-0078765.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DNA;
                                                                                                                                                        screening.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      63.2%;
100.0%;
                   203 C; 219
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                                                                                                                                                                                                       The products can also
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Pred. No. 9.1e-106;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  disease; tumor development; re.
; arthritis; atopic dermatitis;
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                                                                                                                                                                                                                                                                                                                                                                                                        diseases,
es, tumor
                                                                                                                                                                                                                    detection
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RESULT 7
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KW CD86
KW Immu
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                                                                 nucleic acid, inserted into a nonessential genomic region, that encodes feline CD28, CD80, CD86 or CTIA-4 protein, or their immunogenic fragments, and is expressed when the recombinant virus is introduced into a suitable host. The invention also provides: a recombinant virus further comprising a foreign nucleic acid encoding an immunogen derived from a feline pathogen; recombinant
                                                                                                                                                                                                                          This is the nucleotide sequence of cDNA coding for feline CD86 (B7-2). The cDNA was isolated from feline peripheral blood mononuclear cell cDNA by PCR. Manipulating the expression of CD28 or CTLA-4 (and/or their co-stimulatory ligands CD80 and CD86) regulates T cell proliferation and cytokine release. The invention relates to a recombinant virus that contains at least one foreign
                        viruses capable of enhancing an immune response to protect against disease; recombinant viruses expressing antisense sequences,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Novel recombinant virus useful as immunomodulators, particularly
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (SCHE
                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Fig 3A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Vaccines
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P-PSDB; AAY32285
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                28-FEB-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          immunomodulator; tumour; cancer; therapy; ss
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        333
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ВJ,
        of
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SCHERING-PLOUGH VETERINARY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      feline; cat;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (B7-2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   recombinant virus; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1080
  immune response
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  in a
feline,
e.g.
for
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RESULT 8
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Best Local
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                                         infectious
                                               Novel feline proteins infectious disease or
                  Claim 6; Fig
                                                                                                                                                                                                                                                 CDS
                                                                               P-PSDB; AAY32278
                                                                                                              Collison
                                                                                                                                                     01-MAY-1998;
                                                                                                                                                                         30-APR-1999;
                                                                                                                                                                                              11-NOV-1999
                                                                                                                                                                                                                  W09957271-A2
                                                                                                                                                                                                                                                                                             feline sarcoma virus; feline herpesvirus; feline Borna disease; rabies virus; chlamydia; Toxoplasmosis gondii; Dirofilaria immitis; parasite; autoimmune disease; transplant rejection; therapy; ss.
                                                                                                                                                                                                                                                                                                                                                                                   Cat CD86 (B7-2) cDNA.
                                                                                                                                 (TEXA ) TEXAS A & M SYSTEM
                                                                                                                                                                                                                                                                               Felis domesticus.
                                                                                                                                                                                                                                                                                                                                        CD86; B7-2; ligand; cat; vaccine; feline immunodeficiency virus; FIV; feline leukaemia virus; feline infectious peritonitis virus; feline panleukopaenia virus; feline calicivirus; feline reovirus-3;
                                                                                                                                                                                                                                                                                                                                                                                                          15-FEB-2000
                                                                                                                                                                                                                                                                                                                                                                                                                              AAZ34785;
                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAZ34785
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         treatment of autoimmune disease or recombinant viruses expressing DNA
                                                                                                                                                                                                                                                                                                                             feline rotavirus; feline coronovirus; feline syncytial virus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 1080 BP;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACTAAGTATGATACTGTCATGAAGAAATCTCAAAATTAATGTGACAGAACTGTACAACGTT 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ACTAAGTATGATACTGTCATGAAGAAATCTCAAAATAATGTGACAGAACTGTACAACGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                              ŒW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              or eliminate a tumour in cats.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                       (first entry)
                                                                                                            Hash SM,
                                                                                                                                                     98US-0071699
                                                                                                                                                                        99WO-US09502
                                                                                                                                                                                                                                                Location/Qualifiers 63..1055
                186pp;
                                                                                                                                                                                                                                    /*tag=
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                                                                                                                                                                                                                                                                                                                                                                                                                                                CDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             63.2%;
                                             used to produce feline vaccines which prevent to promote growth in homologous or heterologous
                                                                                                             Choi
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                                                                                                                                                                                                                                                                                                                                                                                                                                                1080
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            279 T; 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DB
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1080;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  772
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CD86
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This is

the

nucleotide 3A;

sequence

of.

cDNA encoding

feline

CD86

English

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В
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             T-lymphocytes. Coexpression of CD86 with CTLA-4 (see AAY32280) has the ability to regulate activation of T-lymphocytes. The invention provides isolated nucleic acids encoding feline CD86 ligand, feline CD80 (B7-1) ligand, feline CD28 receptor or feline CTLA-4 (CD152) receptor, as well as vectors comprising the nucleic acids, and polypeptides encoded by the nucleic acids. It also provides vaccines comprising the CD80, CD86, CD28 or CTLA-4 polypeptides and feline immunoded by the nucleic acids. It also provides further comprising the CD80, CD86, CD28 or CTLA-4 polypeptides and feline immunodeficiency virus (FIV), feline leukaemia virus, feline immunodeficiency virus, feline panleukaemia virus, feline calicivirus, feline reovirus, feline panleukaemia virus, feline calicivirus, feline syncytial virus, feline panleukaemia virus, feline coronovirus, feline syncytial virus, feline panleukaemia virus, feline panleukaemia virus, feline coronovirus, feline Borna disease virus, faline sorcoma virus, feline panleukaemia virus, feline panleukaemia provirus, feline coronovirus, feline Borna disease virus, rabies virus, chlamydia, Toxoplasmosis gondii, Dirofilaria immitis, or a flea, bacterial pathogen, or parasite (all claimed). Vaccines capable of suppressing en immune response, and vaccines capable of suppressing or tissue or organ transplant rejection) are claimed. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
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Best Local
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                                       02-MAY-2002.
                                                                                                US2002051792-A1
                                                                                                                                                                                                                                                                                                                                                                                                         AAL46840;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAL46840 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 1080 BP;
30-APR-1,999;
                                                                                                                                             Felis catus
                                                                                                                                                                                            virucide;
                                                                                                                                                                                                               feline immunodeficiency disease; feline infectious peritonitis; feline leukaemia virus; cancer; degenerative disease; autoimmune disease;
                                                                                                                                                                                                                                                                                                         Feline CD86 coding sequence
                                                                                                                                                                                                                                                                                                                                                             08-AUG-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAACTGGAGACACTGGAGATGCTGCTCTCCCTACCTTTCAATATAGA
                                                                                                                                                                                                                                                                 CD28; CD80;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCTATCAGCTTGCCTTTTTCAGTCCCTGAAGCACACACATGTGAGCGTCTTTTGTGCCCTG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      al Similarity
227; Conserv
                                                                                                                                                                                         immunomodulator; cytostatic; immunodeficiency;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                          (first entry)
    99US-0303040
                                                                                                                                                                                                                                                                 CTLA-4; CD86; immunogen;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               333 A; 233 C; 235 G; 279 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        CDNA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            63.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                        1080
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 227;
Pred. No.
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                                                                                                                                                                                                                                                                 vaccine; viral infection;
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Matches 227
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                                                                                                                                                                                                                                          Cat; vaccine; feline immunodeficiency virus; FIV; immunosuppressant; feline infectious peritonitis; gene; ss; CD80 ligand; CD86 ligand; CD28; receptor; CTLA-4; vaccine; rabies; autoimmune disease; organ transplant; toxoplasmosis gondii; flea; parasite; panleukopaen feline leukaemia; FeLV; calcivirus; rotavirus; reovirus type 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New recombinant virus, useful for immunizing felines to prevent or treat feline immunodeficiency virus, comprises foreign nucleic acid encoding feline cytotoxic T lymphocyte accessory molecules CD28, CLCD86 or CTLA-4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Matches
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            invention also relates to a vaccine comprising an effective amount of these receptor proteins. A vaccine is useful for inducing immunity or enhancing an immune response in a cat. The protein sequences of the invention are useful for suppressing an immune response in a feline suffering from an autoimmune disease or the recipient of a tissue or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This invention relates to the DNA and protein sequences encoding a soluble CD80 ligand, soluble CD86 ligand, soluble and membrane-bound CD28 receptor and soluble or membrane bound CTLA-4 receptor. The
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Polynucleotide encoding polypeptide of CD80 ligand, CD86 ligand, CD28 receptor or CTLA-4 receptor as vaccine for inducing immune response in feline suffering from autoimmune disease or tissue or organ transplant
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                           AAACTGGAGACACTGGAGATGCTGCTCTCCCTACCTTTCAATATAGA 227
                                                                                                                                                                TCTATCAGCTTGCCTTTTTCAGTCCCTGAAGCACACAATGTGAGCGTCTTTTGTGCCCTG
                                                                                                                                                                                                                                                                                              ACTAAGTATGATACTGTCATGAAGAAATCTCAAAATAATGTGACAGAACTGTACAACGTT
AAACTGGAGACACTGGAGATGCTGCTCTCCCTACCTTTCAATATAGA
                                                                                                                              TCTATCAGCTTGCCTTTTTCAGTCCCTGAAGCACACAATGTGAGCGTCTTTTGTGCCCTG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          333 A; 233 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           63.2%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Choi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "CD86 protein"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 227; DB 24; pred. No. 9.1e-106;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          235 G; 279 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 1080;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Indels
   772
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                               180
                                                                                                                                                                                                                                                                                                                                                                                                                                                           60
                                                                                                                                                                                                                                                                665
                                                                                                                                                                                                                                                                                                                             120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
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RESULT 11
AAZ27929
                                                                                                                                                                                                                                                                                                                                                           Matches
                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; feline; graft rejection; inflammation; arthritis; atopic dermatitis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Claim 1; Page 116-119; 148pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sim G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AA227929;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAZ27929 standard; DNA; 2830
                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 2830
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            diagnosis and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New isolated B7 and CTLA4 nucleic acids, used to develop products for treating, e.g. autoimmune and atopic diseases \,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    P-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          19-MAR-1998;
17-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     W09947558-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Felis catus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Feline
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (HESK-) HESKA CORP.
842
                                       181
                                                                                    782
                                                                                                                              121
                                                                                                                                                                           722
                                                                                                                                                                                                                                                                  662
                                                                                                                                                                                                                     61
                                                                                                                                                                                                                                                                                                              ب
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1999-571822/48
DB; AAY41079.
                  AAACTGGAGACACTGGAGATGCTGCTCTCCCTACCTTTCAATATAGA
                                                                                                         TCTATCAGCTTGCCTTTTTCAGTCCCTGAAGCACACAATGTGAGCGTCTTTTGTGCCCTG 180
                                                                                                                                                                                                                   ACTAAGTATGATACTGTCATGAAGAAATCTCAAAATAATGTGACAGAACTGTACAACGTT 120
                                                                                                                                                                                                                                                                  ATACAAGGTTACCCAGAACCTAAGGAGATGTATTTTCAGCTAAACACTGAGAATTCAACT
                                                                                                                                                                                                                                                                                           ATACAAGGTTACCCAGAACCTAAGGAGATGTATTTTCAGCTAAACACTGAGAATTCAACT 60
                                                                                                                                                                           ACTAAGTATGATACTGTCATGAAGAAATCTCAAAATAATGTGACAGAACTGTAÇAACGTT
                                                                                  TCTATCAGCTTGCCTTTTTCAGTCCCTGAAGCACACAATGTGAGCGTCTTTTGTGCCCTG
                                                                                                                                                                                                                                                                                                                                                           227;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Yang S,
                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protein encoding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ВP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sheep or pets. drug screening.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98US-0078765.
98US-0062597.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sellins
                                                                                                                                                                                                                                                                                                                                                                                                                                               877 A; 570 C; 586 G; 797 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            screening.
                                                                                                                                                                                                                                                                                                                                                                           63.2%;
                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                      Score 227; DB.20;
Pred. No. 9.2e-106;
0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ВP
                                                                                                                                                                                                                                                                                                                                                                                              DB
                                                                                                                                                                                                                                                                                                                                                                                                     Length 2830;
                                                                                                                                                                                                                                                                                                                                                           Indels
                                       227
888
                                                                                                                                                                                                                                                                                                                                                        0;
                                                                                                                                                                                                                                                                                                                                                      Gaps
                                                                                                                                                                        781
                                                                                                                                                                                                                                                                  721
                                                                                                                                                                                                                                                                                                                                                           0;
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RESULT 12 AAZ27930/c

QΥ Db Qy Дb δδ

Qy В

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RESULT 13
AAZ27923
ID AAZ27
XX
AC AAZ27
XX
                                                                                                            В
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                                                                                                                                                                                                                                                                        В
                                                                                                                                                                                                                                                                                              VΩ
                                                                                                                                                                                                                                                                                                                                                                                Matches
                                                                                                                                                                                                                                                                                                                                                      Query Match
             AAZ27923;
                                                                                                                                                                                                                    2109
                                                                                                                                                                                                                                                                                                                                                                                                                 development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection,
                                                                                                                                                                                                                                                                                                                                                                                                                                                          encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; feline; graft rejection; inflammation; arthritis; atopic dermatitis; ss.
                                         AAL27923 standard;
                                                                                                            1989
                                                                                                                                                                 2049
                                                                                                                                                                                                                                                                         2169
                                                                                                                                                                                                                                                                                                                                                                             Sequence 2830 BP; 797 A; 586 C; 570 G; 877 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 1; Page 121-123; 148pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  treating,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sim G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (HESK-) HESKA CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       19-MAR-1998;
17-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              19-MAR-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Felis catus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Feline B7-2 gene complementary DNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAZ27930
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AAZ27930 standard; DNA;
                                                                                                                                     181
                                                                                                                                                                                           121
                                                                                                                                                                                                                                               61
                                                                                                                                                                                                                                                                                                                                         Local
                                                                                                                                                                                                                                                                                                  _
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            invention provides B7 and CTLA4 (T cell costimulatory proteins)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               isolated B7 and CTLA4 nucleic acids, sting, e.g. autoimmune and atopic dise
                                                                                                                                                                                                                                                                                      ATACAAGGTTACCCAGAACCTAAGGAGATGTATTTTCAGCTAAACACTGAGAATTCAACT
                                                                                                         ACTAAGTATGATACTGTCATGAAGAAATCTCAAAATAATGTGACAGAACTGTACAACGTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1999-571822/48
                                                                                                                                    AAACTGGAGACACTGGAGATGCTGCTCTCCCTACCTTTCAATATAGA
                                                                                                                                                             TCTATCAGCTTGCCTTTTTCAGTCCCTGAAGCACAATGTGAGCGTCTTTTGTGCCCTG
                                                                                                                                                                                        TCTATCAGCTTGCCTTTTTCAGTCCCTGAAGCACACAATGTGAGCGTCTTTTGTGCCCCTG
                                                                                                                                                                                                                  ACTAAGTATGATACTGTCATGAAGAAATCTCAAAATAATGTGACAGAACTGTACAACGTT
                                                                                                                                                                                                                                                                      ATACAAGGTTACCCAGAACCTAAGGAGATGTATTTTCAGCTAAACACTGAGAATTCAACT
                                                                                                                                                                                                                                                                                                                             227;
                                                                                                                                                                                                                                                                                                                                        Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Yang S,
                                                                                                                                                                                                                                                                                                                                                                                                        and drug screening.
                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       98US-0078765.
98US-0062597.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              99WO-US06187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sellins
                                         DNA;
                                                                                                                                                                                                                                                                                                                                         63.2%;
100.0%;
                                           840
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2830 BP
                                         ВP
                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                        Score 227;
Pred. No.
                                                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  diseases
                                                                                                                                                                                                                                                                                                                                        9.2e-106;
                                                                                                                                                                                                                                                                                                                                                      DB 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ٠ť
                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                                                   Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             develop products
                                                                                                                                                                                                                                                                                                                           Indels
                                                                                                                                    227
                                                                                                                                                                                                                                                                                                                                                    2830;
                                                                                                                                                                                                                                                                                                                           0;
                                                                                                                                                                                                                                                                                                                        Gaps
                                                                                                                                                                                                                                                                      2110
                                                                                                                                                                                                                                            120
                                                                                                                                                                                       180
                                                                                                                                                                                                                                                                                                 60
                                                                                                                                                                                                                                                                                                                           0;
 PF
                                                                                                                                                                                                                                                                                                            В
                                                                                                                                                                                                                                                                                                                                    ρy
                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 14
                                                                                                                                                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local
                                                                                                                                                                                                                                           7924/c
AAZ27924
                                                                                                     B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; canine; graft rejection; inflammation; arthritis; atopic dermatitis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs, cats, cattle, sheep or pets. The products can also be used for detection,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecule and the encoded proteins can be used for preventing or treating diseases e.g. autoimmune diseases, allergic reactions, infectious diseases, tumou
                          23-SEP-1999
                                                                               Canis familiaris
                                                                                                                                                          Complementary strand of canine B7-2S coding sequence
                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 840 BP; 278 A; 181 C; 167 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; canine; graft rejection; inflammation; arthritis; atopic dermatitis; ss.
19-MAR-1999;
                                                   W09947558-A2
                                                                                                                                                                                        20-DEC-1999
                                                                                                                                                                                                                  AAZ27924;
                                                                                                                                                                                                                                                                                                                                                                                                                                            diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sim G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        19-MAR-1998;
17-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Canis familiaris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New isolated B7 and CTLA4 nucleic acids, used to develop products for treating, e.g. autoimmune and atopic diseases –
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               P-PSDB; AAY41078
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               19-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  W09947558-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Canine B7-2S protein coding sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20-DEC-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (HESK-) HESKA CORP
                                                                                                                                                                                                                                                                                                             540
                                                                                                                                                                                                                                                                                                                          60 TACTAAGTATGATACTGTCATGAAGAAATCTCAAAATAATGT
                                                                                                                                                                                                                                                                                                            TACTAAGTATGATACTGTCATGAAGAAATCTCAAAATAATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1999-571822/48
                                                                                                                                                                                                                                                                                                                                                                 42;
                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Yang S,
                                                                                                                                                                                                                                           standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Page 114; 148pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                          and drug screening.
                                                                                                                                                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
99WO-US06187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        98US-0078765.
98US-0062597.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sellins
                                                                                                                                                                                                                                            DNA;
                                                                                                                                                                                                                                                                                                                                                                           11.7%;
                                                                                                                                                                                                                                            840
                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                           Score 42;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                   214 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                           DB 20; I
2.1e-11;
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Length Indels

840;

molecules diseases,

tumor

0

Gaps

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RESULT 15
AAZ27915
ID AAZ279
XX AAZ27916
AC AAZ27
XX B7;
AC Cani
XX B7;
KW B7;
KW B1;
KW alle
KW graf
XX Cani
XX Cani
XX I9.
PD 23-
XX I9.
PP 19-
PF 19-
XX I9.
PR 17.
PR 17.
XX I9.
PR 
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local
                            Claim 1;
                                                                     New isolated B7 and CTLA4 treating, e.g. autoimmune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune disease; allergic reaction; infectious disease; tumor development; canine; graft rejection; inflammation; arthritis; atopic dermatitis; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such as atopic dermatitis. They can be used in mammals such humans, dogs,
                                                                                                                                                                                                                          Sim G,
                                                                                                                                                                                                                                                                                                                      19-MAR-1998;
17-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Canis familiaris.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Canine B7-2 protein coding sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases,
                                                                                                                                                                                                                                                                                                                                                                                              19-MAR-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                            23-SEP-1999
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO9947558-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAZ27915 standard; DNA; 987 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 840 BP; 214 A; 167 C; 181 G; 278 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sim G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  treating, e.g. autoimmune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New isolated B7 and CTLA4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 1999-571822/48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (HESK-) HESKA CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19-MAR-1998;
17-APR-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local Similarity les 42; Conserv
                                                                                                                                                                         1999-571822/48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TACTAAGTATGATACTGTCATGAAGAATCTCAAAATAATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TACTAAGTATGATACTGTCATGAAGAAATCTCAAAAATAATGT 101
                                                                                                                                                                                                                    Yang S,
                                                                                                                                                  AAY41076
                                                                                                                                                                                                                                                                     HESKA CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Yang S;
                    Page 102-103; 148pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Page 115;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                98US-0078765
98US-0062597
                                                                                                                                                                                                                                                                                                                                                                                           99WO-US06187
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98US-0078765.
98US-0062597.
                                                                                                                                                                                                                       Sellins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sellins
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 148pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11.7%;
100.0%;
                                                                       and
                                                                                            nucleic acids, used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          nucreic acids, used and atopic diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 42;
Pred. No.
                                                                     atopic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                     diseases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2.1e-11;
                                                                            to develop products
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0,:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    to develop products for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      840;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            for detection
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0;
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RESULT 16
AAZ27916/c
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ωy
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                                                                                                                                                                 The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor development, graft rejection, inflammation, arthritic and atopic diseases such a satopic dermatitis. They can be used in mammals such humans, dogs,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New isolated B7 and CTLA4 nucleic acids, used treating, e.g. autoimmune and atopic diseases % \left( 1\right) =\left\{ 1\right\} =\left\{ 1\right\}
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B7; CTLA4; T cell costimulatory protein; dog; cat; autoimmune allergic reaction; infectious disease; tumor development; car graft rejection; inflammation; arthritis; atopic dermatitis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The invention provides B7 and CTLA4 (T cell costimulatory proteins) encoding nucleic acid molecules from dogs and cats. The proteins can be expressed by standard recombinant methodology. The nucleic acid molecules and the encoded proteins can be used for preventing or treating diseases, and the encoded proteins can be used for preventing or treating diseases, e.g. autoimmune diseases, allergic reactions, infectious diseases, tumor
                                                                                            diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Claim 1; Page 103-104; 148pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI; 1999-571822/48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sim G,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            19-MAR-1998;
17-APR-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Canis familiaris
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Complementary strand of canine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (HESK-) HESKA CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  23-SEP-1999.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          W09947558-A2.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            20-DEC-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 987 BP; 315 A; 215 C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      540
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        60 TACTAAGTATGATACTGTCATGAAGAAATCTCAAAATAATGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local
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                                                                                                                                        cattle,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      42;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Yang S,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                         tle, sheep or pets.
and drug screening
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98US-0062597.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sellins
                                                                                   screening.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11.7%; 50
100.0%; Pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            BP.
                                                                                                                     The products can also be used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 42;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           B7-2 coding sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 204 G;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        253 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DB 20; 1
2.2e-11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             dog; cat; autoimmune disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           to develop products
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0;
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Query Match
Best Local Similarity
Matches 42; Conserv

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Score 42; Pred. No.

DB 20;

Length 987

2.2e-11

Sequence 987

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204 C;

215 G;

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101

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RESULT 18
AAZ27922/c
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AC AAZ279
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                  Canine B7-2S
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US-09-441-411-21
Sequence 316, App Sequence 21, Appli Sequence 556, App Sequence 110, Appli Sequence 11754, Appli Sequence 11754, Appli Sequence 1754, Appli Sequence 1750, Appli Sequence 17571, A Sequence 1417, Appli Sequence 166, Appli Sequence 1677, Appli Sequence 1750, App Sequence 1750, App Sequence 225, App Sequence 225, App Sequence 1750, Ap Sequence 1763, Appli Sequence 17, Appli Sequence 27, Appli Sequence 37, Appli Sequence 3
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; Patent No. US20020051792A1
; GENERAL INFORMATION:
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APPLICANT: Hash, Stephen M.
APPLICANT: Hash, Stephen M.
APPLICANT: Choi, InSoo
TITLE OF INVENTION: Feline CD80, Feline CD86, Feline CD28, and Feline
TITLE OF INVENTION: CTLA-4 Nucleic Acid and Polypeptides
FILE REFERENCE: 54954
CURRENT APPLICATION NUMBER: US/09/303,510A
CURRENT APPLICATION NUMBER: US/09/303,510A
CURRENT FILING DATE: 1998-04-30
EARLIER FILING DATE: 1998-05-01
NUMBER OF SEO ID NOS: 83
CORTWARE. BETCHIN US: 83
CORTWARE. BETCHIN US: 83
           CURRENT APPLICATION NUMBER: US/09/303,040 CURRENT FILLING DATE: 1999-04-30 EARLIER APPLICATION NUMBER: 60/083,870 EARLIEK FILLING DATE: 1998-05-01
                                                                         TITLE OF INVENTION: Recombinant Virus Expressing Foreign DNA Encoding TITLE OF INVENTION: Feline CD80, Feline CD86, Feline CD28, Feline CTL1 FILE REFERENCE: 54957-B
                                                                                                                                    APPLICANT: Winslow, Barbara J. APPLICANT: Cochran, Mark D. TITLE OF INVENTION: Recombinant
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: DNA ORGANISM: Feline
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; LOCATION: (63)..(1052)
US-09-303-040-5
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TYPE: DNA
                                            INFORMATION FOR SEQ ID NO: 31: SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                     APPLICATION NUMBER: US/09/962,969
FILING DATE: 24-Sep-2001
PRIOR APPLICATION DATA:
                                                                                                               REFERENCE/DOCKET NUMBER: TELECOMMUNICATION INFORMATION
                                                                                                                                                                                 APPLICATION NUMBER: 08/702,525
FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                            CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                              ZIP: 02109-1875
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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                                                                             TELEPHONE: (617)227-7400
TELEFAX: (617)227-5941
                                                                                                                                                  NAME: Mandragouras, Amy E. REGISTRATION NUMBER: 36,20
                                                                                                                                                                                                                                                                                                                               OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible
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BF658317 maa88a01.
AW11732 Sheared D
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REFERENCE
AUTHORS
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                                                                                                                                                             RACPAC Resources (http://bacpac.med.buffalo.edu/orderingframe.htm) or from Resea ch Genetics (info@resgen.com). BAC end page: http://www.tigr.org/tdb/bac_ends/mouse/bac_end_intro.html plate: 1 row: G column: 2
                                                                                                                                                                                                  The Institute for Genomic Research
9712 Medical Center Dr., Rockville, MD 20850, USA
Tel: 301 838 0200
Fax: 301 838 0200
Email: szhao@tigr.org
Elmail: szhao@tigr.org
Clones are derived from the mouse BAC library RPCI-23. For BAC
Library availability, please contact Pieter de Jong
(pieter@dejong.med.buffalo.edu). Clones may be purchased from
                                                                                                                                                                                                                                                                                                               Unpublished (1999)
Other_GSSs: RPCI-23-1G3.TJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AZ121157
RPCI-23-1G3.TV RPCI-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Class: BAC ends
                                                                                                                                               Seq primer: T7
                                                                                                                                                                                                                                                                                         Contact: Shaying Zhao
Department of Eukaryotic Genomics
                                                                                                                                                                                                                                                                                                                                  and Fraser,C.M.
Mouse BAC End Sequences from Library RPCI-23
                                                                                                                                                                                                                                                                                                                                                                     Zhao,S.,
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  /note="Organ: Kidney/Brain; Vector: pBACe3.6; Site_1:
ECORI; Site_2: ECORI; Female C57BL/6J mouse kidney and/or
brain genomic DNA was isolated and partially digested
                                                                    /db_xref="taxon:10090"
/clone="RPCI-23-1G3"
                                                                                                                                                           row: G
                                    /lab_host="DH10B"
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                                                          /clone_lib="RPCI-23"
                                                                                          /strain="C57BL/6J"
                                                                                                                          Location/Qualifiers
                                                                                                    /organism="Mus musculus"
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Rodentia;
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AV993842
BG726932
AW516826
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AA901713

DBB831951

AQ615745

BE831118

BG279196
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K., Krol,M.,
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AW711008 eBb10ne.r

AL737842 Danio rer

BG278232 a2f01np.f

AA901713 NCD3E3T7

BB831951 BB831951

AQ615745 HS_5143_A

BE83118 PM2-WT003

BG279196 b1e0.np.f

A1398863 NCW09F3T7

A1750143 at27h10.x

BM695966 UI-e-Ct1-

AA901716 NCP5D9T7

AV993842 AV993842

BG72693 sae29a02.

AW516826 x904h01.x

BE206250 ba95908.x

AA901714 NCP4E2T7

BJ037109 BJ037109

BJ037109 BJ037109
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BG280115 c1a02np.f
AW711008 e8b10ne.r
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de Jong, 
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nes 21; Conser
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          A2235242 420 bp DN RPCI-23-71J9.TV RPCI-23 Mus musculus
DNA sequence.
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100 Jordan Hall, Clemson,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EST
                                                                                                                                                                                                                                                                                                                                            Email: http://www.genome.clemson.edu/orders/index.html
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                                                                                                                                                                                        likely with minor contaminations cells"
                                                                                                                                                                                                            /dev_stage="mixed stages"
/note="Leaves of various stages were shaken in liquid nitrogen, shearing off trichomes. This procedure yield mixture of cells which is highly enriched for trichome
                                                                                                                                                                                                                                                      /clone="cLHT21F11"
/clone_lib="L. hirsutum trichome,
/tissue_type="trichome"
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                                                                                                                                                                                                                                                                                                                        Location/Qualifiers
                                                                                                                                                                                                                                                                                                              .407
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SC 29634,

USA

5.8%;

Score 21; Pred. No.

DB 1 1.3;

10;

Length 407;

0;

Mismatches

0;

Indels

0;

Gaps

0;

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DNA

linear

GSS 14-JUN-2000 RPCI-23-71J9,

genomic clone

59

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84

g

144 t

of other types of leaf

yielded a

Cornell University"

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206 TCTCCCTACCTTTCAATATAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCTCCCTACCTTTCAATATAG
                                                           van der Hoeven,R.S. Bezzeredes,J.L., Matern,A.L., Holt,I.E., Liang,F., Hansen,T., Craven,M.B., Bowman,C.L., Ronling,C.M., Nierman,W., Fraser,C.M., Martin,G.B., Giovannoni,J.J. and Tanksley,S.D. Generation of ESTs from wild tomato (Lycopersicon hirsutum)
Unpublished (2000)
Contact: CUGI
                                                                                                                                                                                             Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Asteridae; euasterids I; Solanales; Solanaceae; Solanum;
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EST323499 L.
                                                                                                                                                                                                                                                             Lycopersicon
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21; Conservative
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                                                                                                                                                                                                                                                                                                                                                                 cDNA clone cLHT21F11 5', mRNA sequence.
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Pred. No.
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Cornell University Lycopersicon
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GenCore version 5.1.4\_p5\_4578 Copyright (c) 1993 - 2003 Compugen Ltd.

OM nucleic nucleic search, using sw model

Run on: April 22, 2003, 16:45:55; Search time 17.2157 Seconds (without alignments) 6395.163 Million cell updates/sec

Title: Perfect score: Sequence: US-09-646-561-33
359
1 atacaaggttacccagaacc.....ggcgacaaaagtactacaca 359

OLIGO\_NUC Gapop 60.0 , Gapext 60.0

Scoring table:

Searched: 441362 seqs, 153338381 residues

Word size : 0

Total number of hits satisfying chosen parameters: 882724

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Listing first 100 summaries

Issued\_Patents\_NA:\*

1: /cgn2\_6/ptodata/1/ina/5A\_COMB.seq:\*

2: /cgn2\_6/ptodata/1/ina/5B\_COMB.seq:\*

3: /cgn2\_6/ptodata/1/ina/6A\_COMB.seq:\*

4: /cgn2\_6/ptodata/1/ina/6B\_COMB.seq:\*

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Best Local :
                                                                                                                                                      Sequence 31,
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                                                                                                                                         Patent No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: (617)227-594 INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NAME: Mandragouras, Any E.
REGISTRATION NUMBER: 36,207
REFERENCE/DOCKET NUMBER: BWI-
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617)227-7400
TELEFAX: (617)227-5941
                                                                                                                         GENERAL INFORMATION:
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LENGTH: 210 base pairs
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MEDIUM TYPE: Floppy disk
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ADDRESSEE: LAHIVE & COCKFIELD
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                                                                                            APPLICANT:
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ATTORNEY/AGENT INFORMATION:
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                                                                                                                                                                                                                                                 295 AGATCTGATGAAGCCCAG 312
                                                                                                                                                                                                                                   112 AGATCTGATGAAGCCCAG 129
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LOCATION:
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                                                                                                                                                                                                                                                                                                           Local
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                              OF INVENTION:
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18; Conservation
ONDENCE ADDRESS:
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                                                         Nadler, Lee
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                                                                           Sharpe, Sharpe
Borriello, Francescopaolo
Freeman, Gordon
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            No. 6294660el Forms of T Cell Costimulatory
Molecules and Uses Therefor
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Pred. No
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PCT-US95-02576-31
; Sequence 31, Application PC/TUS9502576
; GENERAL INFORMATION:
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US-08-702-525-31
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Best Local Similarity
Matches 18; Conserv
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ZIP: 02109-1875

COMPUTER READABLE FORM: Floppy disk MEDIUM.TYPE: Floppy disk MEDIUM.TYPER: "CYPEM: PC-DOS/MS-DOS
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ATTORNEY/AGENT INFORMATION:
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FILING DATE: 02-Mar-1994 ATTORNEY/AGENT INFORMATION:
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PRIOR APPLICATION DATA:
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SOFTWARE: ASCII Text
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STRANDEDNESS: double
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                                                                APPLICATION NUMBER: US 08/205,697 FILING DATE: 02-Mar-1994
                                                                                                                                                                                                                                                                                                                       APPLICATION NUMBER:
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